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Culture and Education

By THEODORE BRAMELD

A Needed Partnership

ALTHOUGH experts in culture differ about many things, they do not differ in their assertion that all cultures ever known to exist in the world vigorously practice education. Nor is education confined to "civilized" cultures. "Primitive" cultures, too, are certain to practice it—and quite as integrally to their ways of life as food-getting or sexual behavior.

The experts in culture are evidently speaking, then, of a kind of experience vastly broader than campuses and classrooms or textbooks and blackboards. In the millenia of cultural history, such objects have, indeed, played quite a negligible rôle. By education, rather, they mean the entire range of practices by which a culture endeavors to perpetuate and improve itself through acquainting each successive generation with its most important traditions, habits, and experiences.

Of course the way of acquainting each generation varies so tremendously that dozens of volumes devoted exclusively to describing this one process would scarcely begin to outline the subject. And yet, amidst all the variety, certain common denominators are easily discernible. Teaching, for example, occurs in all cultures, even though in some no individual may specialize strictly as a teacher. By the same token, learning also occurs in all of them, though again the learner may not be designated formally as pupil or student. In all cultures, moreover, both teaching and learning continue throughout life. While the most intensive period of education ordinarily occurs in childhood, if only for the reason that children are most impressionable, yet adults also are continually exposed to situations demanding additional acquaintance with small or large aspects of their human and physical environment. Finally, it can safely be asserted that education always and

everywhere embraces at least three spheres of subject-matter: it provides training in those practices—verbal as well as manual—that are necessary to survival and welfare; it makes sure no member by-passes rules and routines by which the culture carries on its life activities with some semblance of order and purpose; and it familiarizes each participant with the most essential values that have been forged out of past experience and that continue to endow the culture with those qualities most likely to elicit loyalty and cooperation from him.

In view then of the universality of the phenomenon, it comes as something of a shock to discover how meagerly education has been treated as a cultural institution, not only by experts in education, but even by those in culture itself. Of course, one finds any number of brief references to culture by the former, and to education by the latter. Occasionally one even chances upon an interpretation of considerable length and thoroughness.[1] But these are comparatively few.

Any survey of representative works, popular or technical, made by the specialists of culture, that is, the anthropologists, will reveal that discussions of education, as such, are usually brief indeed: possibly a few paragraphs in a full volume, at most a few pages, or simply none at all. Take as an instance a work by one of America's outstanding experts, *An Introduction to Cultural Anthropology*[2] by Robert H. Lowie, which organizes the chief activities of primitive peoples under the following heads:

Hunting	Handicrafts
Fishing	Amusements
Gathering	Art
Farming	War
Domestic animals	Marriage and the family
Fire	The clan
Cooking	Rank, etiquette, and property
Meals	Government and law
Dress and ornament	Religion and magic
Houses and settlements	Knowledge and science
Trade and transportation	

Obviously, many of these activities have educational significance. Nowhere, however, are they integrated so that we can view them in any kind of pervasive educational pattern. The fact that other equally diverse activities are brought together (under government and law, say) indicates that diversity or diffusiveness is insufficient reason for the omission.

Or take the recent encyclopedic inventory, *Anthropology Today*.[3] Of course, again, issues relevant to education unavoidably receive attention—the psychology of learning, for example. Yet one is struck by the omission of the term from its lengthy index, and even more by the fact that not one of the fifty-some world leaders who contribute to its nine hundred pages sees fit to pay education anything but the most casual notice as an explicit cultural fact.

Nor is contemporary literature on the side of the professional educator much more attentive. Works in educational sociology do not avoid the subject of culture altogether, but most of them manage to avoid

[1] Cf. The symposium by a number of experts, *Education and the Cultural Process*, Charles S. Johnson, editor (University of Chicago Press, 1943).

[2] New York: Farrar and Rinehart, 1940.

[3] International Symposium on Anthropology, New York, 1952. An encyclopedic inventory prepared under the chairmanship of A. L. Kroeber (University of Chicago Press, 1953. 966 pp.).

systematic or searching examination of its meaning and rôle, and few carefully distinguish it from their own favorite category of "society." Some exponents of progressivism or experimentalism in educational theory are more likely to pay it moderate attention, but their acquaintance with research in the field is seldom intimate, and their typical discussions are limited or tangential. At the same time, most other works in educational theory either ignore the culture as though it did not exist or simply take it for granted; while dozens of widely studied volumes in curriculum, school administration, even educational psychology, are content at most with a few paragraphs, if they mention it at all.

NOW I venture to suggest that this remarkable negligence can in considerable part be accounted for by two characteristics of the culture itself—or, more exactly, of contemporary Western culture. The first is the habit of specialization; the second, the habit of complacency.

The habit of specialization refers, obviously, to the academic practice of achieving competence in a single field, or more often in a minute segment of that field—a practice which no doubt reflects in turn the pattern of narrow proficiency on the technological level. That the expert in culture and the expert in education are both susceptible to the habit of specialization is apparent from the fact that they are both regarded as experts. Conventionally, the cultural anthropologist has been concerned with the scientific study of particular primitive groups, and he has built a remarkable set of skills with which to pursue such study. The educator has been concerned with the organization and operation of schools, and he too has become skillful in his own sphere. On the whole, however, and again with exceptions, neither specialist has until very recently ventured much beyond his own bailiwick. The possibility that each might learn from the other, if for no other reason than that culture and education vitally depend on each other in actual experience, has apparently seldom occurred to either one.

The second characteristic, the habit of complacency, of accepting long-established practices and beliefs as though they were sacrosanct and virtually eternal, is less firmly implanted in the representative cultural expert than it is in the educator. The fact that our economic institutions are so widely regarded as a permanent fixture of the American order no doubt encourages the educator to transfer his complacency to other institutions, especially to education. At any rate, preoccupied as he ordinarily is with the worrisome business of explaining and maintaining his policies or practices, he usually seems more eager to protect them from criticism than to look upon education with too searching an eye. Therefore he is unlikely to respond immediately to the proposal that education should be appraised in wider range, for instance, as a powerful adjunct of culture.

But the cultural expert, much better trained though he is in historical perspective, is himself rarely immune to the habit of complacency. He too belongs, after all, to an on-going culture. He too is reasonably sure therefore to assimilate, albeit unconsciously, certain of its

institutional beliefs and practices even while he is acutely self-conscious about others. It follows that his attitude toward education may turn out to be sufficiently similar to the expert's in education that it hardly occurs to him to regard it as an object quite as deserving of scholarly scrutiny as, say, kinship or ancestor worship. Like numerous educators themselves, he may, moreover, have absorbed enough of the inherited optimism of Western culture so that he can see no special reason for becoming critical of the general progress that education appears to be making. Or he may simply become so fascinated by his specialized researches that he has no time or energy to deal professionally with an institution at once so cumbersome and pervasive as education.

YET, while the habits of specialization and of complacency help to characterize a large proportion of experts down to the present day, it would be exaggerating grossly to make this blanket assertion about all of them. Like most generalizations involving people, this one badly needs qualification, and particularly with regard to the types of experts I have been discussing. More than those in many other fields, some—an important and influential minority—have in recent years become deeply troubled over the consequences of both habits.

Certain educators, for example, have severely criticized the standard high-school and college curriculum of specialized, divided, and subdivided subject-matters. They see in it a device that retards rather than accelerates the adolescent's growth either into an integrated personality or toward an integrated approach to the world in which he has to live. At the same time, certain cultural experts, questioning the adequacy of too narrowly specialized research, are widening the scope of their inquiries to include not only much more of the interworkings and underlying forces in primitive cultures but in civilized cultures as well.

Within each group one can also discover certain leaders who are discarding much of their earlier complacency. Far from passively approving the timeworn beliefs and structures of Western culture in general, or of Western education in particular, they are becoming severely skeptical toward them. A few educators have gone so far as to maintain that the educational system, by and large, is increasingly obsolete. With all its elaborate paraphernalia, its huge personnel, and its tremendous cost, they maintain that it has not succeeded in keeping pace with the requirements of a swiftly moving civilization—that it has, if anything, lagged further and further behind. Meanwhile, some anthropologists, whether they agree entirely with this particular indictment or not, do manifest concern at the present time over the unprecedented rate with which changes in patterns of culture are occurring in every section of the globe, changes that impinge upon the Aranda natives of Australia or the Baiga people of India at least as ruthlessly as upon the farmer in England or city dweller in New York.

I am merely saying, of course, that just as the habits of specialization and complacency are themselves conditioned by the cultural period to which we have become accustomed, so their modification or replacement

is conditioned by the new cultural period into which we are now moving. I am not saying, however, that the two periods are distinct in time. The second overlaps with, because it is still emerging from, the first—one result of which is that either the educator or the anthropologist may combine, however uncomfortably, qualities of both periods within his own character. On the one hand, his need for specialization in order that he may advance professionally by the customary route may very possibly compete with an equal need for integration in order that he may assuage his sense of historic urgency. On the other hand, his need to acquiesce or to conform in order that he may win the approval of administrative or other authorities may compete with an equal need to challenge or even to repudiate in order that he may measure up to his own standards of intellectual integrity. In any case, the fact that some educators and some cultural experts suffer from such polarities may, in turn, help to account still further for the relative infrequency with which they actually meet upon any common ground: perhaps they are simply too involved in their own tensions and conflicts to do otherwise.

At least if they are not thus involved they are exceptional indeed. For if there is any one point of agreement among psychiatrists, social psychologists, and other scientists of contemporary man, it is that he is chronically bedeviled by turmoil within—by inconsistent values, warring moral codes, ambivalent goals. The Freudian analysis of this chronic condition has contributed richly to our understanding of its causes. But it is a circumscribed analysis. Because it centers upon inherent psychological attributes, it fails too largely to consider the momentous influence of culture upon those attributes. More specifically it fails to consider the significance of one fact already mentioned, namely, that the cultures of every continent are now undergoing transformation at a rate of speed hitherto unknown in all of history.

It is precisely this transformation which, more than any other event of the past century, signalizes the existence of a tremendous, world-wide crisis. It is a crisis of multiple causes and multiple if unpredictable effects—a crisis that leaves no group and no individual wholly untouched; a crisis that compares in both danger and promise with none in any century since the breakdown of feudalism and the rise of our industrial era; a crisis, finally, that may well eventuate in the complete collapse of what we like to call civilization, or just as possibly in the emergence of the most humane, abundant, and peaceful age that mankind has ever known.

This discussion cannot hope to elaborate so monstrous and appalling an assertion, but we can at least be reminded that the evidence supporting it is prodigious indeed. Not only do some of the most profound philosophic interpreters of Western culture agree that it is now literally imperiled by disintegration—Arnold J. Toynbee, Ernst Cassirer, Karl Mannheim, and Lewis Mumford, to mention four of quite different orientation—but some of the leading scientists of culture are equally agreed, among them one of the most eminent experts of our century—Bronislaw Malinowski. It is significant to note the title of perhaps the most widely read symposium in the history of American

anthropology—*The Science of Man in the World Crisis*.[4]

Nor is the sense of far-reaching crisis altogether absent among educational leaders. A few—Robert M. Hutchins is one—have warned us of the threat of human catastrophe on a planetary scale. Even the normally optimistic temper that characterizes John Dewey seems to become more qualified as his later writings take sharp note of the close proximity of two world wars, of recurrent economic deprivation, and of the rapid spread of totalitarian systems over huge territories of the globe.

It is important, however, not to forget that even today reactions such as these are by no means commonplace. The warning that we are already caught in the throes of a cultural crisis is still largely peripheral to many professional circles of discussion and research, even in the social sciences. The "prosperity" that America has enjoyed under a war economy apparently softens the critical mood even among those who, pecuniarily, benefit least. And any *rapprochement* between cultural and educational experts for the purpose of reinterpreting and revaluating education in the dramatic setting of culture is, in largest part, yet to be considered either as a rich opportunity or a serious obligation.

LET us glance at the current American scene to illustrate what such an opportunity and obligation might actually entail. Precisely because education in this country, as in all others, is so organic to American culture viewed as a whole, it is bound to reflect in its beliefs and practices quite as many symptoms of conflict, confusion, and uncertainty as the culture that sustains it. Not only has the huge increase in population, itself a cultural problem of first magnitude, created a major crisis in the public schools by far out-reaching their capacity to accommodate our children. Not only is there a consequent lack of classrooms, equipment, and qualified teachers. On every side the adequacy of educational policies and programs is being questioned, debated, condemned, defended. Its techniques and curriculums are outmoded, say some. It fails to teach the three R's and respect for the social heritage, say others. The schools and colleges fail to train properly for jobs and professions. No, they are altogether too vocation-centered. They devote disproportionate attention to classics and other inert subject-matters, thus neglecting the great issues of our time. No, the trouble is that they deal overmuch with current events, not nearly enough with the classics. And so on, through dozens of other arguments, foggy opinions, contradictions. I select just two areas of current dispute for re-examination in a cultural frame of reference: the first, the dispute over academic freedom; the second, the teaching of moral and spiritual values.

Although there has never been a time in the history of American education when academic freedom has been devoid of controversy, at no time has it generated so much disagreement as in the years of the Cold War. Everyone who has followed recent events is aware, moreover, that the controversy is far from being merely verbal or confined in its effects

[4]Ralph Linton, ed. Columbia Univ. Press, 1945.

to the educational fraternity. Committees of Congress have seen fit to hold unprecedented hearings in various cities of the country—hearings regarded almost invariably as front-page news and sometimes even televised for audiences of millions. Powerful "patriotic" organizations have made it their business to step up their perennial investigations of the schools. The rights of the scholar under the First Amendment to the Constitution, which ostensibly guarantees him the same privilege of freedom of speech as any other citizen, have been redefined not only by Congressional committees but by the Supreme Court itself. And innumerable laws—local, state, and national—have been passed to protect the young from the iniquitous designs of radical teachers.

Perhaps the most disturbing consequence, however, is not what happens professionally to the relatively few who are directly investigated, tragic though that consequence sometimes is. It is rather in the negative results—in the fears, intimidations, and retreats that infect the remainder of the academic body. The cautiously toned-down lectures and re-edited textbooks; the soft-pedaling of controversial issues and experimental methods; the hesitancy of teachers as well as of administrators to defend their own profession too aggressively; and the reluctance of students to stand up or speak up lest they, too, be branded as somehow out of step with the *status quo*—these are some of the effects of the present dispute over the tradition of academic freedom.

Yet, in a way, the effects are salutary. They have made education a matter of intensified public concern. They have forced a fresh and vigorous re-examination of the teacher's rights, limitations, and responsibilities. In this process they have compelled clearer recognition of the fact, still too often overlooked, that education is the agent of culture, that its policies and functions are fashioned and sanctioned by the culture—in short, that education is just as strong or weak, independent or dependent, effective or ineffective, as the culture itself permits.

To assert this much is far from providing, of course, any easy solution. In one sense, rather, the solution becomes very much harder. We are now compelled to take the controversy out of any merely professional enclosure, to set it squarely in the public arena where it rightfully belongs, and there to discover quickly enough that academic freedom is part and parcel of the much more complex problem of human freedom in the milieu of man's entire history. Thereby we are brought squarely up to the ancient yet still unresolved question of what the ultimate grounds and sanctions of freedom of any kind must be. From what fountainhead is it ultimately derived in human or, perchance, superhuman nature? Is freedom somehow always cherished by man, even the primitive one, or is it merely the concomitant of particular kinds of cultural environment? If the former answer seems the more attractive, why then have we Americans so warmly cherished freedom while other peoples sometimes have not—or, if they have claimed to cherish it, apparently have meant something different by a symbol that seems identical with ours?

And why, above all, does it now appear that persons in places of great influence find that the kinds of freedom sanctified by the Bill of Rights must be subjected not only to revised political and legal but also academic definitions? Is it a sufficient reason to say that we have become so fearful of totalitarianism, so lacking in confidence toward democratic methods, that we must punish those who speak in dissent from, who fail to conform with, a given "official line"? Or, perchance, are there more profound reasons—reasons that may compel us to discover with a Spengler, a Toynbee, or a Malinowski that the present trouble over academic freedom is but the minor ripple of a major wave in the irrevocable stream of cultural history?

CONSIDER our second example—the dispute over education for moral and spiritual values. On the one hand, impassioned critics of the public school contend that it has become so totally imbued with secular beliefs that countless millions of children are growing into adults devoid of any religious faith, and hence of any grounded standards of right and wrong or any other values. On the other hand, equally vigorous defenders insist the indictment is unfair, that while public education does not and should not indoctrinate for any special religious faith, such indoctrination is by no means equivalent to the legitimate objective of teaching about moral and spiritual values. So vehement has the dispute become that the American Council on Education, a body uniting numerous powerful educational organizations, has seen fit to support an unprecedented nation-wide survey in order to determine how serious our educational leaders consider the problem to be and what they think should be done about it.

Meanwhile, an extraordinary range of pressures, many of them effective, have begun to operate. Religious exercises under sectarian influence are held regularly in great numbers of public schools. "Released time" from regular school hours to provide religious instruction in church or synagogue is practiced throughout a number of states, and now with the sanction of the Supreme Court itself. The Roman Catholic Church has thus far successfully blocked national legislation which would provide general funds for public education, its contention being that the parochial school should receive part of such funds if they are to be provided at all. Church scholars have also been hard at work endeavoring to prove that James Madison and other Founding Fathers never intended that church and state should be kept completely separate, and therefore that support of religious education becomes a legitimate responsibility of the Federal government.

Now the moment that we consider moral and spiritual values in connection with the traditional separation of church and state, we become aware that the dispute is intertwined not only with the whole evolution of American democracy, but with two of the most ancient and powerful institutions ever constructed by man. For the "church," clearly, is the institutional symbol of a human experience as common and yet as diversified even as education—the

experience, of course, of religion itself. The "state," too, is such a symbol: however crude its early forms, it demonstrates that wherever and whenever men wish to live collectively they must have rules that are enforceable, and that provide some minimum assurance of continuity and order.

In short, we are confronted again with an issue the ramifications of which reach both to the depths and to the outermost boundaries of culture. Therefore we are compelled, as we were with the example of academic freedom, to widen our perspective far beyond the school. We must not fail to ask whether, in the intricate designs of primitive and civilized cultures alike, some thread of common meaning may run through all three of the venerable terms—"moral," "spiritual," and "values"—and if so whether it has been and still remains education's business to deal with them in accordance with such meaning. We must not ignore quite a different question: Are current organized efforts to weaken the wall of separation between church and state still further evidence, not only of an undercurrent of dissatisfaction with the conduct of traditional democracy, but with the whole direction of modern history toward a scientific and secular approach to life?

Nor, finally, must we forget to inquire whether the current controversy over moral and spiritual values is not profoundly related to our first example: academic freedom. If, for example, we interpret such values in the context of one or another traditional religion, we then need to inquire whether to indoctrinate these in the young is incompatible with the principle that learning is democratic only when it scrupulously avoids forcing a particular doctrine upon students—only when, accordingly, it assures careful consideration of all important alternative doctrines. Or consider the relationship of the two controversies in a still wider setting: if academic freedom is held to be indispensable to the scientific and secular approach to cultural experience, then of course it will seem much less indispensable to those political and religious groups that repudiate or subordinate that approach. The current involvement in redefinitions of academic freedom may be symptomatic, from this point of view, of a crucial moment in Western history—a moment that may shortly determine whether the meaning of freedom as forged out of the struggle for modern science and modern democracy will or will not be altered to support more congenially the resurgence of some form of antisecular, antiscientific, or prototalitarian way of life.

THESE two disputes, sketchily treated though they are, should be sufficient to underscore the necessity of building between experts in education and experts in culture a dynamic, working partnership. Here I can urge only the first step toward such a partnership: a sustained effort on the part of each group to develop means of co-operation and communication with the other group, and thereby to diminish the effects of certain stereotypes. Today, on the one side, experts in education often look skeptically upon the "impractical" research of the "pure" scholar

in literature, philosophy, or the sciences. Being themselves close to the firing line of everyday experience, they may become impatient with, say, the anthropologist who devotes years to examining and sorting the archaeological minutiae of some extinct tribe of Indians in southern Arizona. But, on the other side, experts in culture may be equally skeptical of the expert in education—at any rate they are sure to be if they share the professional skepticism toward him that is chronic among academicians. The professor of education in particular is regarded widely as a busy-worker, absorbed in trivialities of pedagogical technique, and quite devoid of scholarly standards or attainments.

Like all stereotypes, these of course distort the actual character of both groups. Not that they are totally false: again like all stereotypes, one can detect just enough reality in them to tempt the error of hasty generalization. It is certainly true that the scientist, artist, or scholar may become so enamored of some microscopic pursuit that he seems unaware of and quite lacking in responsibility to the burning issues of our time. It is certainly true, likewise, that the educator in his zeal to be practical and "down to earth" may fail to realize that educational practice is never better than the creative theory, objective research, and scrupulous scholarship upon which such practice, no less than other kinds, ultimately rests. It is also true, however, that neither academician nor educator is accurately characterized by attributes such as these.

I have already noted that some influential educators and cultural experts, in the degree that they have begun to react with deep concern to the disturbances that now seem to affect every segment of contemporary culture, have begun also to discard the comfortable habits of specialization and complacency. These leaders recognize, and share their recognition with an increasingly attentive public, that older professional routines are rapidly becoming quite as obsolete as older ways of travel or communication. Educators are beginning to demand a fresh and audacious approach to institutional programs —whether they speak of training teachers, planning an elementary-school curriculum, administering a university, or co-operating with the local, national, or international community. Anthropologists, simultaneously, are participating in such agencies as Unesco, endeavoring to bring about a more enlightened public understanding of race and other crucial cultural phenomena, and sharing their own research with experts in such other sciences as political science, economics, and psychology.[5]

It is not within my province to tell the anthropologist how in detail he might carry further his recent efforts at inter-disciplinary learning by including the educator as a full-fledged partner. I can only say that, were he to do so, he could assist educators a very great deal. Certainly he ought to do so if for no other reason than that education as an agency of culture offers him almost virginal opportunity for both incisive and inclusive exploration.

[*Continued on page 111*]

[5]Even since this article was completed, another significant step toward co-operation has been taken by Stanford University and the American Anthropological Association in holding an Educational Anthropology Conference in Carmel Valley, California, June, 1954, the findings of which will shortly be published by Stanford University Press.

The Quest for Competent Instructional Staff

By RAY C. MAUL

Summary of a Nation-Wide Survey Made by the Research Division of the N.E.A.

THE theme of the thirty-seventh annual meeting of the American Council on Education last October was, "Preparing To Meet the Rising Tide of Students." This was just one of many indications that the leadership in higher education is anticipating a future problem involving a profound change in the size and possibly the composition of the instructional staff. Attention is already pointed to such questions as these: How many staff members will be needed, in what fields of instruction, and what qualifications should they possess? Where will this greatly increased number of competent staff members come from? And what conditions of service will influence the number to become available?

It now seems certain that higher education is at the threshold of an era of vast expansion. In 1954 the reservoir of eighteen- to twenty-year-olds—the normal college-age bracket—reached a modern low. The number within this group has decreased annually during the past ten years, but now it is increasing. By 1964 it will be three million larger, and by 1970 it will have grown by a full six million college-age adults.

Future conditions will, of course, dictate how many of these youth will seek college education. Some authorities predict a total enrollment of five million (some say six million) students before 1970. Regardless of the nicety of these calculations, higher education must arrive at some far-reaching decisions concerning such problems as the kinds of education to be provided; the groups to be served; the number, size, and functions of the institutions to be maintained; and the administrative organization of the institutions. Implied in this last item will be a re-examination of the present assumptions concerning teaching load in an effort to achieve the fullest possible utilization of all available staff. Underlying every consideration will be the intensified search for funds to meet the increased costs, particularly the costs of plant expansion and enlarged instructional staff.

Fortunately, higher education has a little time to contemplate and to prepare for a new era. It now stands where elementary education stood twelve years ago, and where secondary education stood four years ago. Elementary education has been overrun with pupils for whom it has neither classrooms nor qualified teachers; secondary education is now girding itself for the onslaught. It is encouraging, therefore, to note that higher education is sternly confronting

itself with some of its problems while they are yet in the incipient stage. Particularly is this true when the time element in the preparation of the needed instructional staff members is recognized.

Preparatory to the consideration of long-range problems, it seems fitting to ask these questions: What is the preparation of the present full-time instructional staff? What are the requirements for appointment of new members? How is the present staff distributed among the four customary professional ranks? What are the requirements to gain tenure? What factors influence promotion in rank? What encouragement is given to further study? What health and retirement provisions obtain on college and university campuses? Aside from salary, which is always a major factor in a free, competitive society, are working conditions such as to invite larger numbers of superior students to choose college teaching as a professional career?

TABLE I

NUMBER OF DEGREE-GRANTING INSTITUTIONS INVITED TO PARTICIPATE AND PER CENT REPLYING

Types of Institutions	Number Invited To Participate	Per Cent Replying
(1)	(2)	(3)
State universities	63	79.4
Nonpublic universities	88	71.6
Municipal universities	13	92.3
Land-grant colleges	58	74.1
State colleges	133	72.2
Teachers' colleges	122	83.6
Nonpublic colleges by enrollment—		
Under 500	289	55.7
500–999	170	69.4
1000 and over	97	59.8
Total*	1,002	67.8

*Individual figures shown do not add to totals because universities that are also land-grant colleges have been included under both categories.

IN SEARCH of answers to this list of questions, the Research Division of the National Education Association conducted a study among all types of degree-granting institutions during 1953–54.[1] The report recognizes that these institutions fall logically into seven groups, or types, and the results of the study were reported accordingly (with one type subdivided into three parts). The number of each type of institution invited to participate and the percentage responding are shown in Table I.

Instructional staff members are assigned professorial rank in all but a few of the very small institutions. In general, the effort is made to maintain a rather even distribution of the total full-time staff among the four customary ranks, as shown in the following table:

	Per Cent of Staff
Professor	26.8
Associate professor	21.8
Assistant professor	30.4
Instructor	21.0

Among all institutions, assistant professors are the most numerous, totaling just over 30 per cent, while associate professors and instructors, just over 20 per cent each, comprise the smallest groups.

Some types of institutions deviate sharply from this average distribution of staff among the ranks. Small nonpublic colleges report the highest percentage (40 per cent) of full professors, but the lowest (19 per cent) of associate professors. Nonpublic universities have the largest percentage (24 per cent) of instructors, while teachers' colleges have only

[1]National Education Association, Research Division. "Instructional Staff Practices and Policies in Degree-Granting Institutions, 1953–54," *Research Bulletin*, XXXII (December, 1954), pp. 159–214.

14 per cent at this lowest rank. Assistant professors range from a maximum of 40 per cent in teachers' colleges to a minimum of 26 per cent in small nonpublic colleges.

The academic preparation of the present instructional staff presents a striking record. If college and university staffs are to expand in the near future, the search for adequately prepared candidates may well take on new dimensions. Will the future standard for the college and university instructional staff member be the Doctor's degree? The present staff falls far short of this academic attainment.

TABLE II

PREPARATION OF FULL-TIME INSTRUCTIONAL STAFF MEMBERS

RANK	PER CENT OF INSTRUCTIONAL STAFF MEMBERS WITH	
	Doctor's Degree	Master's Degree plus One Year
(1)	(2)	(3)
Instructor	11	17
Assistant professor	30	26
Associate professor	46	27
Professor	71	13
Total	41	21

	Master's Degree	Less than Master's Degree
Instructor	45	27
Assistant professor	36	8
Associate professor	27	5
Professor	11	4
Total	28	10

Table II shows the distribution of the present staff at these four levels of preparation. Only 41 per cent of the full-time instructional staff members[2] now in service have attained the highest level, and more than 10 per cent have not yet earned the first advanced degree. In only one type of institution (nonpublic universities, with 52 per cent) does more than one-half of the staff hold the Doctor's degree. Next come the state universities with 48 per cent; then municipal universities, with 44 per cent; then land-grant colleges, with 43 per cent. All four of these multiple-unit types have higher percentages of holders of Doctor's degrees than any of the single-unit types of institution. High among the latter are the large nonpublic colleges, with 38 per cent, and low are the teachers' colleges, with 30 per cent. Teachers' colleges are high, however, among all types of institutions, with 31 per cent of all instructional staff members having completed at least one year of preparation beyond the Master's degree. In this category the four multiple-unit institutions are at the bottom, with percentages ranging from 11 to 19.

Teachers' colleges show up best in the matter of staff members with less than the Master's degree, with only 3 per cent in this category. Large nonpublic colleges are at the other extreme, with 14 per cent, followed by land-grant colleges and small nonpublic colleges, with 13 per cent, and nonpublic universities, with 12 per cent. State colleges report 7 per cent of the staff have not yet earned the Master's degree.

PRESENT requirements for appointment to the instructional staff indicate a steady, if modest, upgrading movement. Almost all institutions maintain announced policies in this matter.

At the top level of preparation, 84 per cent of all institutions require

[2]It should be noted that part-time instructional staff members are not included in any part of the study.

the Doctor's degree for appointment to a full professorship; 71 per cent of the professors now in service hold this degree. Some 44 per cent of the institutions require this degree for appointment as associate professor; 46 per cent of those in service meet this standard. For an assistant professorship 15 per cent of the institutions stipulate the Doctor's degree; 30 per cent of those in service meet this requirement. Only 3 per cent of the institutions prescribe the Doctor's degree for appointment as instructor, while 11 per cent of those in service have it. It is perhaps more than a coincidence that 27 per cent of the institutions indicate a willingness to appoint to an instructorship a person who does not hold the Master's degree, and exactly 27 per cent of the instructors now in service have not yet attained this level of preparation.[3]

The content, as well as the total amount of formal preparation of the candidate, is a point of growing concern in all types of institutions. It is evident that many leaders in higher education deplore the ineffectiveness of the youthful, inexperienced Ph. D., but agreement on what to do about it is quite another matter. To remedy the situation, two different procedures are advocated. One group of employers emphasize successful experience at the elementary- or high-school level. They contend that the college teacher, working with undergraduate students who are in training to become teachers, should know something, at first hand, about the problems his students will face when they enter the classroom. Some administrators stress the importance of this background for undergraduate teachers of the academic subjects, as well as those who work in professional education departments. According to this reasoning, the college teacher of chemistry, English, history, or mathematics would be the more effective for having taught this subject to high-school students. Thus, after earning the Bachelor's (or perhaps Master's) degree, a term of elementary- or high-school teaching is recommended for the person preparing for the Doctor's degree and, ultimately, for college teaching. A few college authorities pointed out that public advocacy of this plan would strengthen the whole teaching profession by attracting higher type students into preparation for teaching.

The second method advocated for strengthening the competency of the college instructor involves his identification early in his doctoral program. If he is ambitious to teach in college, the young student should give some consideration to such areas as the structure, philosophy, history, and responsibility of the American educational system, the contributions of psychology to an understanding of the learning process, and contact with teaching through some form of student internship.

WIDESPREAD dissatisfaction with the preparation of the typical inexperienced candidate was expressed by the responding authorities in teachers' colleges and state colleges, but similar critical comments came from a scattering of authorities in each of the other types of institutions. Some representatives of every

[3] In these comparisons it must be kept clearly in mind that the reported number of institutions imposing certain requirements, with their staff size unknown, can only be compared in a general way with the number of staff members now in service with various amounts of preparation. The pairing of the figures in this paragraph must be taken as no more than a general indication of relationship.

type of institution were equally outspoken, however, in deploring the invasion of graduate programs by "methodology" and "professional courses." Usually the latter were not defined, but there are many leading administrators in higher education who are fearful that any modification of the doctoral program might lead to a "watering down" process, a dissipation of precious time needed for specialization.

Three other aspects of the preparation problem came to light in the study. First is the fact that experience requirements for appointment to the instructional staff, other than those already noted, are no more than incidental. Second, there is a growing impatience with the notable lack of a "broad background" in more than the field of specialization of the doctoral candidate. From all types of institutions comes the cry that the beginning college teacher not only lacks appreciation of the values to be derived from other fields; he also lacks the background necessary to gain a sympathetic understanding of the efforts and goals of his staff fellows. His desire to make specialists of his students transcends his devotion to the development of well-rounded scholarship at the undergraduate level. The third factor brought to light in the study was the obviously growing belief of administrators in the undergraduate colleges that the present pattern of doctoral study does not fit the emerging Ph. D. for a full-time instructional assignment—that the required orientation and in-service training impose a mounting burden upon the employing college.

Upgrading of instructional staff members—encouragement to further study after they have demonstrated their right to a place on the staff—seems to lack organized support on many campuses. It appears that almost exactly one-half the degree-granting institutions make no systematic provision to aid the staff member who wishes to take leave for advanced study. This is true in the face of widespread practice by all types of institutions of employing instructional staff members whose academic attainments are modest indeed.

It seems obvious that, if colleges and universities want to move toward the Doctor's degree as the standard for full-fledged staff members—even in just the academic fields—they cannot await the production of an adequate supply of candidates who are fully qualified before they are employed. Many, perhaps an increasing number, of the instructional members must be employed at less than this level of preparation. Those proving themselves satisfactory must then be encouraged to further study. Something can be accomplished, of course, through summer study at graduate schools, but it would seem that more substantial impetus is needed.

Institutions vary widely in their approach to this problem. Almost one-half either extend no financial aid whatever, or do so on the individual basis. Among those institutions maintaining a policy of leave of absence with aid, the most common practice is to allow full salary for one semester or half-salary for one year. Of these institutions, two-thirds extend this privilege to all ranks alike, and one-third vary the policy according to rank. Some, for example, do not extend this aid to instructors. In general, a period of six years' service to the institution

is prerequisite to leave with pay. Only a few institutions require reimbursement if the staff member does not return after a period of advanced study.

TERMS of acquiring tenure vary widely among colleges and universities. There is no majority practice. Three years of service are required by 43 per cent of the reporting institutions; seven years, required by 14 per cent, is second; five years, required by 13 per cent, is third; other requirements range from one to six years. Four per cent of the institutions do not extend tenure status to staff members, and seven per cent have no formulated policy.[4]

Just over one-fourth (27 per cent) of the reporting institutions require a staff member to serve an arbitrarily stipulated number of years in one rank before becoming eligible to advance to the next. Most commonly, this time requirement is three years, but it ranges from one to eight or more years. An interesting side light is the fact that more than one-half (56 per cent) of the responding authorities express a favorable attitude toward such a requirement as institutional policy.

Similarly, just over one-fourth (30 per cent) of the reporting institutions maintain, as a policy, the requirement that an instructor must qualify for advancement to an assistant professorship within a stipulated period, or be dismissed. Such a regulation (requiring advancement in rank) applies to an assistant professor in 10 per cent of the institutions and to an associate professor in 3 per cent of them.

Contrary to a widespread assumption, activity in research is not the most potent factor in earning professional promotion. The factor ranked highest by all types of institutions is "evidence of exceptional skill in teaching." Next in emphasis is "graduate study," which indicates the clear presumption, on the part of employing officials, that the bulk of new appointees to the instructional staffs will enter classroom service at some level of preparation below the Doctor's degree. It is evident that the prospect of promotion in rank is, and will continue to be, an incentive to further formal study, as beginners confirm their interest in a college-teaching career.

In conclusion, the study has sought to sharpen the focus upon several factors to be reckoned with, as colleges and universities look to the future. Perhaps the first of these is the incompleteness of the preparation of the instructional staff now in service. While it is readily admitted that the quantity of formal preparation is not an adequate measure, alone, of the teacher's effectiveness, it is equally certain that more, rather than less, preparation is consonant with the increasing complexity of our daily lives. So, as colleges and universities seek to strengthen the competence of staff members now in service, they will try to look beyond the horizon for a much larger number of new staff members with a higher level of competence for an even more complex task.

So, also, colleges and universities will re-examine the terms and require-

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[4]For a report on staffs in 448 junior colleges, *see* Harold H. Punke, "Ranking, Tenure, and Sex of Junior-College Faculties," *School Review*, XLII (November, 1954), pp. 480–87.

The Amherst Program

By A. B. ARONS

Experience with a Calculus-Physics Course Required of All Students

AS ONE of the group of required courses of the first two years at Amherst College, the freshman science course (Science 1 and 2) must serve and satisfy two principal objectives: It should develop in all students some understanding of the nature of scientific concepts and scientific thought, and of science as a force in our modern culture. It must at the same time adequately develop and challenge those students who plan to major in one of the sciences and must not be a period of dispersion of effort or marking time for them.

Although there seems to be a belief in certain quarters that these objectives are mutually antagonistic, or at least that it is not feasible to combine science majors and others in the same course, the persons now teaching Science 1 and 2 are satisfied that the double objective can indeed be achieved in a single course required of all students. The crucial aspect lies not so much in the subject-matter of the course as in the attitudes and points of view adopted by the teachers and, above all, on the performance required of the student. Our approach to these problems will be described in the pages which follow.

As basic sciences, requiring an absolute minimum of initial, qualitative, factual knowledge, mathematics and physics instantly offer themselves as logical choices for a freshman course. Science 1 and 2 is based on a selection of subject-matter from physics in such a way as to illustrate the growth and development of certain important concepts in physical science; at the same time, mathematics is being developed to show its rise as an independent discipline and the inevitable manner in which it also became the heart of physics.

The freshman course is intended to occupy about one quarter of the student's time. During the first semester, the following weekly meetings are held: two section meetings in mathematics, one lecture and one section meeting in physics, and one afternoon (two-hour) laboratory in physics. During the second semester, the same meetings continue, but there is an additional physics lecture (total of two) each week. The course carries a nominal rating of four credit-hours.

Since the available lecture room can accomodate only one-half the freshman class of about 250, the class is divided into two divisions of equal size, designated A and B. At this point some slight separation of the students is effected. Most of the students who have indicated a prior interest in science, engineering, and medicine are placed in Division A,

regardless of previous scholastic record or aptitude scores. To this division are also assigned some men who have good scholastic records and aptitude scores, but who may not have had either physics or trigonometry in secondary school. Care is taken not to debilitate Division B by removing all the able students, but in general the median entrance scores of this group are somewhat lower than those of A. The two divisions do identical work in physics, having the same lectures, assignments, examinations, and laboratory experiments, but Division B adopts a slightly slower pace in mathematics, resulting in a lag of about two weeks behind Division A at the end of the first semester.

All the members of the mathematics and physics departments as well as one man from chemistry and one from astronomy now participate in the program. Each division is divided into five sections, and instructors in mathematics and physics are assigned to each. Personnel and schedule limitations make it impossible to achieve the ideal plan in which each instructor handles his section in both mathematics and physics. During the past few years, four instructors have been able to handle their sections in this manner; the other six sections have had different men in mathematics and physics. As a result, it has been the practice to give separate quizzes and examinations in mathematics and physics, and for the instructors to keep separate records in these subjects until the time comes to issue a mark in the course. At this point they are combined, and the student receives a single mark, evaluating his over-all performance in the science course.

IN MATHEMATICS, the first semester is devoted principally to the development of the basic concepts of differential and integral calculus as applied to the very simplest mathematical functions (principally polynomials), emphasis being on the logic and conceptual scheme rather than on facility with complex manipulations. The concepts of derivative, antiderivative, and definite integral are developed so that they are available for application in physics during the second half of the semester.

The second semester in mathematics continues with the development of further fundamental theorems, the treatment of functions other than polynomials, maxima-minima, and so on. The textbook now being used is Sprague's *Calculus* (Ronald Press).

In physics, the first semester is devoted to mechanics. Kinematics of uniformly accelerated linear motion is introduced first without calculus. However, immediate use is made of the analytical geometry of the straight line, which is concurrently being developed in mathematics. Newton's laws of motion are then developed, with static equilibrium of forces as a special case of the second law. By the time it is desired to introduce rotational motion (about the middle of the semester), the concepts of derivative and antiderivative are available from mathematics, and kinematics is redeveloped in terms of the calculus. The concepts of impulse, momentum, work, and energy are then introduced directly in terms of the definite integral which has by this time also been developed in mathematics. The semester is concluded with a brief discussion of the growth of the planetary theories in an

effort to indicate the impact on our culture of the Newtonian synthesis of the laws of motion and the theory of gravitation.

In the first half of the second semester, material is selected from the fields of wave motion, electricity, and optics. The selection is so made as to prepare the way for devoting the second half of the semester to a logical development of the growth of our concepts of the structure of matter.

The description of subject-matter contained in the physics course readily reveals the large gaps which have been left. Nothing is said about fluid mechanics, elasticity, thermodynamics, or alternating current phenomena. Very little is said about sound, gases, and electric circuits. The science majors and pre-medical students take in their sophomore year a physics course (one semester) which is designed to fill these gaps.

Two textbooks are used in the physics work: Holton's *Introduction to Concepts and Theories in Physical Science* (Addison-Wesley) and White's *Modern College Physics* (Van Nostrand). Holton's basic pattern is followed in the course, but the emphasis is frequently changed, much less time being spent on the growth of the planetary theories, but considerably more time on fundamental concepts in both electricity and optics. The latter subject-matter is taken from White.

Every possible advantage is taken of the fact that the student is required to provide himself with two textbooks. Parallel assignments are made in both books. It is explicitly pointed out to the student how much more efficiently an understanding of concepts can be developed if more than one source of information is used in routine study. This is done in the hope of giving the student the earliest possible, first-hand experience of the importance and utility of references other than the single textbook he usually has in a course.

Furthermore, a conscious effort is made to stimulate the critical faculty of the student and make him aware that the printed word is not beyond criticism. He is frequently asked to compare and criticize parallel developments of a topic in the two books.

ONE of our principal objectives is to make the student explicitly aware of the process of acquiring knowledge in any field. He is shown that remembering isolated facts, facility at getting answers to problems, remembering how to go through certain operations or lines of reasoning do not represent intellectual achievement or advance of his education. Every effort is made to focus his attention on the necessity of understanding conceptual schemes and lines of thought, on the necessity of being able to verbalize these ideas himself, on the essential tool embodied in the perception of patterns and relationships.

It is explicitly pointed out that study does not consist of learning the inert end results, but must consist of the vital procedure of analyzing every step of the conceptual scheme which precedes the end result, of continually asking oneself questions about the material, of visualizing changes in the situation being discussed, of asking oneself about the consequences of these changes, and

of formulating new problems, however simple.

It is the tragedy of our educational system that our youth is rewarded from childhood for successful regurgitation of inert ideas and end results. Attention is rarely or never focused on the ideas behind the end results, and our students have quite naturally developed a conditioned reflex. They know what kind of performance is rewarded, and they develop the idea that knowledge and education are embodied in a barren, periodic regurgitation of facts and procedures. It is small wonder that their motivation toward intellectual effort is essentially nil and their intellectual reflexes are those of automatons.

Our primary goal is to unseat, or at least shake, this conditioned reflex and the attitude it generates toward knowledge and ideas. We insist explicitly that end results are trivial in themselves, that no one cares in the slightest how high the stone goes when it is thrown into the air, that what is significant is an understanding of the logic and conceptual schemes that lead to our successful description of that particular event.

In tests and laboratory work the student is repeatedly called upon to verbalize ideas of this kind: He must define concepts, explain lines of reasoning, formulate simple problems in his own words, recognize in a given context what information is "known" and what is "unknown" even when no numbers are specified. He must be able to distinguish among fundamental laws, arbitrarily defined concepts, empirical results, and explicitly indicate the rôle each plays in the development of a line of thought or solution of a specific problem. Students are not required to memorize any derived relations. It is emphasized that whatever effort is put into memorization should be devoted entirely to careful and precise memorization of the vocabulary of the subject.

Examination questions occasionally call for the derivation of certain basic equations, but every effort is made to discourage plain memorization of the steps of derivation. The questions are so worded as to make the student explain the logic of the derivation, indicating what results are sought, why a certain starting point must be adopted, and what motivates the steps which follow. Of course, if this depth of understanding is to be required of the student, it is our obligation to make all such aspects explicitly clear, and great care is taken to do so in every development of new material.

Frequently an examination question states a certain derived relation, and the student is asked not to derive it but to explain to what situations it is meant to apply, what each term stands for, what principles it was derived from, what assumptions and limitations were incorporated in the derivation. Then, after having had to consider the equation in this manner, he may be asked to apply it to obtain (and interpret verbally) the numerical result in some specific problem.

With techniques of this kind, we attempt to shake the conditioned reflex and lead the student into his first real exertion of intellectual effort. Students are explicitly encouraged to discuss the subject with each other outside the class, to help each other with homework by explaining prob-

lems in accordance with the pattern required on tests, and to verbalize changes and modifications in assigned problems or to make up new ones of their own. It is explained that all these ways of talking about a subject help them master it, and that this principle applies to their studies in general, not just to our course. As a matter of fact, we carefully seize every possible opportunity to point out those attitudes and ways of study and thought which apply to other disciplines as well as our own.

We try to keep the student aware of how important and fruitful it is to stand back and examine the thought processes he is using, to recognize when he is using the same approach in a new and different situation, to recognize patterns of thinking and relationships among various situations so that the volume of arbitrary factual knowledge he has to master can be compressed as much as possible. And again it is emphasized that science has no monopoly on this kind of thinking.

These are indeed broad and ambitious educational objectives, and I am sure that not one of them is being enunciated for the first time. However, drawing from my own academic experience at several colleges, I feel that only very rarely are these ideas explicitly presented and explained to the students so that they are aware of why they are required to perform in a certain way. One is expecting too much, if he leaves educational ideas of this kind implicit in the development of a course and hopes that students will become aware of them by some process of osmosis. These ideas must be made explicit during the development of the course—not once, but many times, with repeated illustrations in specific terms.

Students are very receptive to such an adult approach. This is not to imply that any magical transformation is achieved in which all students begin to think clearly and take intellectual life seriously. However, much of the usual resistance to a demanding program of study is gradually broken down during the first semester; the students sense (if only vaguely) a valuable educational experience, and begin to cooperate, showing much evidence of improved study habits and a focusing of attention on the significant factors—on ideas, methods, and lines of reasoning. Their performance is by no means brilliant, but one can see them groping their way toward new and more fundamental intellectual values, and we are convinced that this is at least a step in the right direction.

Conant, Holton, Nash, Rogers, and many others have contributed brilliantly to the definition of the objectives which a general-education science course should serve in developing an awareness of the nature and methods of science. The writer would contribute nothing by restating these ideas. Suffice it to say, that we strive to attain these objectives by examining areas of modern scientific thought; dealing with the subject-matter and concepts *per se;* showing the rôle mathematics has played in contributing to beauty, form, and rate of growth; and standing back in the manner of Holton's splendid book and seeing how science works and grows as we develop the concepts themselves. We are convinced that

our direct approach to the attainment of the general objectives already referred to is practicable, and perhaps at least as fruitful, as many of the ingenious indirect methods being tried at the present time.

The writer has taught at both an engineering and a liberal-arts college and is firmly convinced that the intellectual approach to science, as exemplified by Holton's text, is not a form of dessert which should be reserved only for students in liberal-arts or general-education programs. Our future scientists, engineers, and doctors need this perspective at least as much as the others. The conviction that this need is paramount is part of our justification for keeping our future science majors in this particular course.

Actually our insistence upon a real understanding of concepts and lines of reasoning, as opposed to superficial facility at problem solving, finds all the Freshmen at virtually the same level, regardless of their previous background. This approach not only makes possible, but actually necessitates, the treatment of the freshman class as a unit, without separation into advanced and beginning groups. It must be remarked that this empirical observation stands as a serious indictment of a secondary-education system which apparently stuffs the minds of our youth with what Whitehead has called "inert ideas" instead of stretching and stimulating these minds with genuine glimpses of what really precedes the end results on which they are drilled. A bit of education as opposed to training in physics in the secondary schools would immediately force us to change the structure of the freshman course and to put into an advanced group those boys who have had physics before coming to Amherst, but under present conditions, we are literally forced to do otherwise. Each year about two or three exceptionally trained boys qualify for direct admission to the sophomore course on the basis of first-semester performance in Science 1, but it should be noted that this is a mere one per cent of the class.

WE BELIEVE that it is particularly important to establish as explicitly and clearly as possible the relationship between what we are doing in Science 1 and 2 and what is being done in other courses which the Freshmen are taking simultaneously. In the English composition course as given at Amherst, they are being exposed to a rigorous examination of the nature of language and verbal communication. They are being led to analyze the process involved in the definition of words, and are being faced with simple situations about which they have to formulate statements which make sense to other individuals. This training and practice is of inestimable practical value to us in the teaching of science. We repeatedly call specific attention to the manner in which we are applying the general principles of the composition course to a specific field of knowledge. We insist (in parallel with the English Department) that the student formulate statements entirely on his own and that these statements must use words precisely and must make sense to other individuals. The English course is frequently referred to during our classes and lectures, and mention of the science course arises with increasing

frequency in the English section meetings. This carry-over has produced clearly visible, favorable effects on student morale and attitude toward both courses, and is proving to be a very powerful educational force.

Holton's book makes possible a very substantial carry-over between our course and the courses in humanities and history. Every opportunity is taken to make explicit reference to such interrelationships. Many instructors in the humanities course have read Holton and make references to ideas developed in the science course when the opportunity arises.

THE tone adopted in the laboratory work is very similar to that described in connection with class and lecture. The student is expected to verbalize, entirely on his own. He writes up all experiments in a blank notebook. The experiments comprise simple situations with an absolute minimum of set or elaborate apparatus. At every possible opportunity, the student is required to formulate his own problem and then to investigate it. Virtually no specific instructions as to procedure are given. For example, in an experiment on magnetism each party of two students is given a needle and cup of water for making a crude compass, a couple of unmarked bar magnets, a battery, and a length of fine wire. Their instructions are to determine the polarity of the magnets and then to construct an experiment in which they study (in accordance with concepts previously discussed in class) the direction of torque on a current-carrying coil in a magnetic field. It is indicated that they should first write up a plan of experiment, execute it, and since it will probably be a false start, amend the plan and continue until the experiment is successful, carefully writing up everything, including all failures and the reasons therefor.

In an experiment with Mach's reaction cars, the students receive several unmarked steel slugs and are told to measure mass, using the principles of the famous "thought experiment" as developed in classroom work. The student urge to run to a balance and find the number of grams in one of the slugs is ruthlessly supressed by the instructors, and the student arrives at the realization that he must select a slug and call it one "something." He also barks his intellectual shins on the equation in one unknown in which he solves for the masses of the cars themselves.

In one of the few experiments utilizing set equipment, the students are confronted with the Cenco rotator apparatus for measurement of centripetal force, but no instructions are given with respect to how and what to measure in which order. Probably the most important aspect of this experiment is the fact that the students must first sit down, play with the apparatus, and decide for themselves what each part is supposed to do and what each gadget is for. Naturally, the instructors must go around and prod the slower groups with leading questions. But as one observes the boys opening their eyes to the nature of a mechanical gadget, talking over their inferences about the function of parts the existence of which they would not otherwise have noted, getting some idea of what it

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Area Studies

By MARSHALL K. POWERS

A Neglected Field of Academic Responsibility

FEW developments in American higher education have enjoyed more widespread attention than the postwar interest in area studies. Despite wide publicity, the concept of area studies is imperfectly understood. Their youth, coupled with the fact that in several aspects they involve a departure from the conventional unidisciplinary approach, has led to a considerable amount of confusion as to structure, function, and rôle.

Jean B. Duroselle has defined the area study as "the scientific study of a region presenting a certain politico-social unity with a view to understanding and explaining its place and its role in international society."[1] She concludes her definitive paragraph with the observation that "this result can only be obtained by the systematic use of *all* [italics mine] branches of study that may provide valid explanations."

While as a curricular pattern they are largely a postwar product, the Second World War was not the mother of area studies. The foundations of American higher education were built upon an area-studies approach to the classical civilizations. Professors of Latin and Greek included geography, government, the fine arts, and history in their studies of the ancient world. However, in so far as the principle of area studies was concerned, the entire program of classical studies was geared to language training. Language proficiency was the end rather than a means to an end.

Several promising area programs were interrupted by the Second World War. Over a number of years Far-Eastern departments of some American universities offered courses in language instruction and supplemented this material with strong supporting courses in history, government, religion, and so on. Early in the present century, courses on Spanish America were offered by the late Herbert E. Bolton at the University of Texas. Subsequent years saw the introduction of courses in the geography, government, and literature, of the southern Americas, and, by 1941, an Institute of Latin American Studies had been established at Texas.

There can be little doubt that, despite these pioneer beginnings, the experience of the armed services during the Second World War provided an impetus to area programs in higher education. Two global wars within a generation shocked Americans into a realization that our knowledge of foreign areas and their cultures was tragically inadequate.

[1] *International Social Science Bulletin*, IV (1952), p. 636.

Overnight our government required the services of regional specialists. Logically, the universities were expected to provide the desired specialized information. As a consequence of unpreparedness, however, the armed services were forced to establish their own programs. Two general programs were organized in several universities—the Civil Affairs Training Schools (C.A.T.S.) and the Army Specialized Training Division (A.S.T.D., later A.S.T.P.). Both of these programs were administered by the Provost Marshal General. The general program got under way in 1943 and was eventually installed in 227 colleges and universities throughout the country. In the winter of 1944 the European phase of the A.S.T.P. program was discontinued. The Far-Eastern branch was continued for another term.

The contribution of these programs to subsequent area studies is of considerable importance, despite the fact that the Army considered language facility an end rather than a means. Much of the governmental research, as well as the area training programs, was organized upon a regional basis. Many university professors were converted to the area approach as a consequence of their wartime service. A relatively large body of men was trained in the area concept, and many educators learned a great deal about the techniques and methods of organizing and administering area programs. Finally, the war experience taught the universities that American scholarship has a positive responsibility in keeping our nation prepared, and, if this responsibility is to be accepted and effectively discharged, that means must be found which will destroy the unhealthy spirit of academic isolation which characterizes so much of our scholarship.

THE inadequacies of American area scholarship raise many questions of serious import. Could wiser scholarship have brought about a better understanding of world relationships and prevented war altogether? Can a fresh approach by our academic world to its national and international responsibilities aid in the achievement of a more durable and satisfactory peace? Many scholars have arrived at the conclusion that an intelligently conceived area-studies program would provide, at the very least, one approach to the problem of academic responsibility. Certainly a more promising approach has yet to make its appearance.

Julian H. Steward has indicated four basic objectives of area studies. These are: to provide knowledge of practical value about important world areas, to give students and scholars an awareness of cultural relativity, to provide understanding of social and cultural wholes as they exist in areas, and to further the development of a universal social science.[2]

As early as 1916 some of the more practical values of area studies were outlined in a bulletin published by University of Texas. Many of the observations of this brochure remain valid today and are applicable to other areas as well as to Latin America. This pamphlet reads in part as follows:

The growing interest in these countries and the increasing importance of commercial and diplomatic relations with

[2] *Area Research: Theory and Practice.* New York: Social Science Research Council, 1950. pp. 1–2 (Bulletin, No. 6).

them make it necessary for all well informed people to be able to discuss them intelligently. It is especially desirable that people who expect to travel . . . should understand all they can of the languages, customs, resources, and history of [the] countries [which they plan to visit]. . . . More important . . . [than advantages to the traveler] . . . is the fact that the impression which peoples abroad get of the United States comes . . . from . . . citizens of the United States. Ill-informed, and therefore snobbish, travelers from the United States have done and are doing much to injure the reputation of their country. . . . If all travelers could have a sympathetic understanding and appreciation of the countries where they travel they could do much to remove international hatred and strife.[3]

More recently, Robert Hall, of the University of Michigan, has written that two "wars within a generation have proved beyond a reasonable doubt that we must know more of the other nations of the earth. . . . In each war, we promise that we will do better. With each peace, we again forget."[4] It would appear that our national survival hinges, in considerable measure, upon our understanding of friend and potential foe alike.

On the graduate level, the basic function of the area program is to conduct vital research and to train persons able to deal intelligently with specific culture areas. This can be accomplished through the development of advanced techniques of integrating information derived from the several fields of the social sciences as well as from other disciplines which can contribute to the understanding of a particular area. On this level, it is planned that the great bulk of the area studies shall be in addition to the conventional disciplinary training given in a recognized subject field. There is, however, considerable controversy concerning the desirability of building an area program within such limits. Some envision the creation of an independent discipline, leading to a degree in "area studies," rather than a standard discipline with supplementary area training. At present, the bulk of scholarly opinion rests with the former proposal. Strong arguments can, however, be advanced in the defense of the latter.

THE area program, a newcomer to the field of higher education, has not been without its detractors. Much of the opposition presents valid objections which must be met forthrightly if the area-studies program is to survive. It is unfortunate that a considerable body of opposition arises from petty personal prejudices and selfish reluctance to see academic spheres of influence challenged. An objection which is persistently raised by educators accustomed to the traditional approach relates to the apparent absence of a hard and well-defined core. Such an objection cannot be brushed lightly aside. It does, nevertheless, fail to take into consideration that time and patient effort will see the development of such a core of knowledge, insight, and methodology. Moreover, most advocates think of area studies as an additional competence rather than a displacement of an existing discipline.

A less pedantic objection is concerned with the employment opportunities for graduates of area pro-

[3] *Facilities at the University of Texas for the Study of Latin America.* Austin, Texas: University of Texas.

[4] *Area Studies; with Special Reference to Their Implications for Research in the Social Sciences.* New York: Social Science Research Council, 1947, p. 82 (Pamphlet 3).

grams. There appears to be little cause for alarm lest the demand for graduates in this program may be lower than for those trained in traditional disciplines alone. Rather, there is every prospect that added area competence will open wider employment opportunities. On the undergraduate level, the problem would appear to offer even fewer difficulties. Aside from engineering and colleges or schools of education, few departments or other administrative units of instruction assume any responsibility for the placement of their graduates. The technique of obtaining employment—even the area of employment—frequently bears little relationship to the major discipline. However, since the United States is entering an era of tremendously expanded opportunities and responsibilities, largely as a consequence of our newly acquired international status, there should be a growing demand for area specialists. As new techniques of communication and transportation are developed, our contacts—cultural, diplomatic, and commercial—with other regions of the world will be multiplied many-fold. Should the State Department find it possible to demand of all consular and diplomatic employees a thorough knowledge of the languages, traditions, customs, and history of the countries to which they are assigned, our prestige abroad would be immensely enhanced. Oliver C. Carmichael, president of the Carnegie Foundation for the Advancement of Teaching, estimated in 1947 that, for many years to come, the need for area specialists would far exceed the supply.[5]

[5] *Forty-Second Annual Report* of the Carnegie Foundation for the Advancement of Teaching (New York, 1947), p. 12.

Additional objections are numerous but less valid, and in great measure reflect many unreasoned jealousies and prejudices. Robert Redfield once wrote: "Universities are, among other things, places where professors and departments compete with one another for students, courses, influence, and a larger share of the budget.[6] Against this background it is not surprising that any development which represents potential competition to the established segments of the academic community's work will meet with vigorous opposition. "Old hands" of the academic profession tell many stories of vigorous attempts in earlier years to block the rise of disciplines that are today accepted as "respectable." Such is the pattern of progress.

Objections to the area program which deal largely with administration are frequently encountered. With the increasing popularity of the area approach after the Second World War, there was an unreasoned rush for representation among the colleges offering area programs. Much of this should be properly accredited to competition; perhaps regional jealousies played their rôle as well. Anticipated publicity value is often the principal factor leading to the creation of the additional programs. Such commercialization of the area program does much to create additional ill will among those already disposed to be critical of the philosophy of area studies.

Area isolationism is still another problem. Sound administrative planning is essential if this problem is to be overcome. Robert Hall has wisely observed that "knowledge of a partic-

[6] "Area Programs in Education and Research." New York: Social Science Research Council, 1944. Mimeographed. pp. 1–2.

ular area has meaning only when viewed in terms of world relations."[7] The area-studies program of the University of Florida, for example, has anticipated this obstacle by requiring each member of the area faculty to divide his professional duties into two phases. He is an area specialist and an active worker in his disciplinary specialization at the same time. Admittedly, however, this arrangement would be difficult to maintain with uniform effectiveness in every institution.

IN REVIEWING the advantages claimed for area studies by its proponents, one authority commented that the problem was not whether the institution could afford a program but rather whether it could afford not to sponsor an area-studies curriculum. When tested in the crucible of war, American scholarship was found to possess twin defects. Specific information concerning many phases of the culture of our enemy was not available to the government when needed. There was, second, no sound body of scholarly precedent upon which to draw. Had this been available, there would have been no necessity for the large-scale training programs such as A.S.T.P. and C.A.T.S. Continued neglect of these unquestioned responsibilities of American higher education will compel government sponsorship of training programs to meet the demands of war and peace.

A decade ago, the British government, concerned with the inability of English colleges and universities to offer appropriately competent instruction in several critical areas, created a commission to study university facilities and to formulate recommendations to the government. The Scarbrough Report[8] was the result of this study. The government proposed to take immediate steps to alleviate the critical situation. In this case the initiative was taken by the government as a consequence of a clear-cut default by higher education. It is unlikely that American colleges and universities would appreciate the duplication of this situation in our country.

The writer, a product of a Latin-American area program, has had repeated opportunities to reflect unhappily upon the spotty "popular" interest in his culture area. Immediately after the First World War, a flurry of interest in Latin America was reflected in the expanded curriculum offerings in several universities and a number of historians and other Latin-American specialists were appointed to college and university faculties. Shortly afterward, however, interest began to fall off and, in the decade or so prior to the Second World War, relatively few men were trained in this field and university curriculum offerings were on the whole meager.

With the coming of the Second World War, we were again caught short. Personnel to staff governmental agencies was not available. Untold millions of dollars were spent to provide minimum training for essential personnel demanded by the armed services. This could have been avoided, had we learned our lesson of the First World War more thoroughly. Today, definite signs of apathy are evident. Many confi-

[7] Hall, *op. cit.*, p. 34.

[8] A brief review of the Scarbrough Report and its implications will be found in the *Forty-Second Annual Report, 1946–47* of the Carnegie Foundation for the Advancement of Teaching, pp. 4–13, *passim.*

dently predict that should war strike, our problem would be much the same as that of the early 'forties.

Enrollments in, and enthusiasm for, arts and sciences training in culture areas is steadily declining. The "practical sciences" are recruiting great numbers of the available students. Much has been said and written about "total peace" being the inevitable counterpart of "total war." Should we work for total peace with the vigor and sacrifice demonstrated in total war, there would be less likelihood of a third global struggle. A valuable contribution to the concept of total peace can be made through the creation of soundly conceived and wisely administered area-studies programs.

Area-studies programs offer one of the brightest hopes for breaking down the compartmentalized learning which has been so characteristic of American higher education in years past, a characteristic imported from German universities. Rigid departmentalization has largely failed to give to the student an integrated appreciation of even the culture in which he himself lives.

Interdisciplinary training, which is essential to the success of any area-studies program, can do much to break down the largely artificial barriers which characterize much of the social sciences today. Quite as important as the advantages accruing to the student are the opportunities for the faculty of hitherto competing disciplines to pool their talents in a co-operative undertaking. Integration thus becomes a keynote of success. Although it is possible for several specialists to offer courses in different disciplines, each relating to a culture area, the potential advantages of integration are lost in the multi-disciplinary approach. Unhappily, this situation too frequently characterizes the so-called area program.

Within the experiments which have attempted to break down arbitrary boundaries, two basic types of co-operative programs are usually to be found. The first of these is the central, integrated introductory course, and the second, an advanced seminar, usually concentrates on a specific research problem. The advantages of such a program to interdisciplinary co-operation are summed up in the observation that it "would involve the continuing co-operation of a 'team' of language experts and specialists in other aspects of the region, who would plan and execute an integrated program not only in teaching but also in research."[9]

The report of Milton Eisenhower to the President on his "fact-finding" trip to South America repeatedly underscores the responsibility of higher education in laying a solid foundation upon which a prosperous American hemisphere may be built. This is no less true of other world culture areas. Area studies offer a potentially valuable contribution to the implementation of this responsibility.

THE introduction of the area-studies curriculum poses serious administrative problems. The arranging of such a program calls for courage, foresight, and wise planning. If the administrator arms himself with three basic and easily defended explanations for the area curriculum, he will have taken a firm step toward

[9] Quoted from the Harvard University "Report of a Subcommittee on Languages and International Affairs" (November 12, 1945, typescript), p. 2, in Hall, *op. cit.*, p. 27.

the achievement of his purpose. A program of area studies is practical since it provides the student with some elements of essential training for employment in foreign trade, diplomatic or consular service, missionary work and the like, and it is educationally defensible because most educators accept the thesis that any arts and sciences program which provides a truly liberal education must provide an intelligent sequence of courses on the great sociocultural regions of the world. Finally, if the student is to acquire the spirit of toleration and understanding which is demanded of the world citizen of today, he must have at least minimum training in understanding the peoples and cultures of the world in which he lives.[10]

Four basic problems must be faced at the onset. These concern the culture area selected as the focal point of the institution's program, the disciplines to be utilized in the area curriculum, personnel needs, and the particular courses through which the goals of the area project are to be reached.[11]

Fundamental to a decision on the first problem is the establishment of a definition of a culture area. To qualify for consideration, an area, whether politically independent or dependent, must have a sufficiently pronounced individuality to permit it to play its own part in international relations. This state may be said to have been reached if individuals of this area are in a position to act in an independent rôle in international relations (considered here in their broadest sense). The lower limits of consideration occupy most of the thinking of the area planner. The delimitation of the larger ranges poses a less serious question. Duroselle observes that it may be

> . . . expedient to group a number of territories for an area study . . . when this group presents some unity of character [geographical, ethnical, linguistic, historical, economic, and so forth] affording every likelihood of all the components of the group having certain features in common in the matter of international relations; [or] . . . when none of the elements in this group has such a pronounced individuality—on account of its long history, its large population and the brilliance of its civilization—that its differentiating features outweigh those it has in common with the rest.[12]

This broader concept does not, however, indicate that Latin America, for example, could not be divided into several culture areas which would qualify as area studies.

Perhaps a more pragmatic approach to this problem revolves around such considerations as library resources, staff and other personnel considerations, a determination, based on knowledge of what other colleges in the region are doing in this field, of how best a program may be made complementary rather than competitive, and, perhaps, the availability of financial support.

A second basic problem confronting the administrator involves a decision as to what disciplines must or should be employed to survey adequately the selected area. Every culture region will vary in details, and each will perhaps recommend the utilization of disciplines that would be inappro-

[10]Adapted from a series of suggestions offered by Maurice T. Price in "A Proposal for Foreign-Area Courses," *American Association of University Professors Bulletin*, XXXI, (Winter, 1945), pp. 649–50.

[11]*Ibid.*

[12]Duroselle, *loc. cit.*, p. 643.

priate to another. Three disciplines are, however, regarded as essential to any area study. These are sociology, history, and geography.

Geography, human, physical, and economic, can do much to explain the international pattern of life of any area. It cannot offer explanations for all problems, nor do its practitioners make such claims for it. Geography does, nevertheless, provide upper and lower limits beyond and below which any culture may not operate effectively. History provides the only technique for determining that which is permanent and that which is transient in any society. It gives a clue to what is recurrent and what is new. History does not provide an answer. It is a means and not an end. Only its relatively imperfect state of development prevents sociology from being used as widely as the older disciplines. Its most vital contribution is to be found in the fact that a study of human groupings permits fine shades of distinction to be made in the various segments of society and thus precludes the serious errors of interpretation which are made when the area is considered as a total block or mass.

It is fairly obvious that a multitude of other disciplines will play vital rôles in each area. As the areas differ, so will the disciplines vary. Law, religion, the arts, economics, political science, anthropology, and perhaps even some of the biological sciences might be profitably utilized. Language facility is, naturally, basic to the functioning of any area program.

The key to a great measure of the potential success of the area program is the caliber of the staff appointed to administer it. The selection of the staff is, quite obviously, an administrative responsibility. Among the necessary qualifications for teachers, five appear to be fundamental to the success of the enterprise. These are (not necessarily in the order of their importance): a residence in the region to be studied of sufficient length to give familiarity with the broad outlines of its culture patterns; an excellent command of the language or languages to be encountered in the work of the area program, and wide reading knowledge; a solid background of training in disciplines other than area competence; personal qualities which lend themselves to a smoothly functioning and closely integrated program; and a firm belief in the value of area studies. At first glance it would appear that the last qualification might be taken for granted, but the experiences of earlier programs underscore its importance. Many staff members are appointed solely because of their availability, their training, or other factors of convenience. Other qualifications are desirable in addition to those enumerated. This would, however, appear to be a minimum inventory. Too much emphasis cannot be placed upon this aspect of the planning phase of the program.

A fourth and final problem is that of selecting the area courses which are to be offered. Again, the regional specialization will call for varying curricular approaches. Still another factor to be considered is the peculiar rôle of campus "departmental politics." While it is true that one of the essential features of an area-studies program is the opportunity it gives

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How Many Can We Teach?

By ERNEST H. CHERRINGTON, JR.

This Is More than an Administrative Problem.

THE answers given during the next few years to the question that serves as the title of this paper will determine whether or not several million American boys and girls now in elementary and secondary schools will be denied the opportunity of going on to college—an opportunity for which they will be qualified both by aptitude for and performance of scholastic work. There are two reasons why size of class and instructor's load have become key questions that must be answered before institutions of higher education can realistically estimate their respective capacities to meet the overwhelming demands of the future.

In the first place, educators have noted with growing concern how the educational cost per student has shot upward in recent years. If it has not doubled during the last decade, the college is probably near the extreme limits of the solvency scale that runs from affluence to bankruptcy. Consequently, if we attempt to maintain the *status quo* with respect to size of class, teaching loads, instructional methods, and student-faculty ratio, we do not have to look far ahead to see the day when only the rich will be able to afford the instructional fees that colleges will have to charge. Already some of them have raised tuition fees to around $1,000 a year (plus another $1,000 for room and board), and the end is nowhere in sight. How many families will be able to budget their funds so that they can save $8,000 or more for the college education of each of their children?

In the second place, there simply will not be enough college teachers to meet all the classes of the future on the same basis as they are presently being taught. Registrar Ronald B. Thompson's well-known studies show a continuous and significant increase in the number of eighteen- to twenty-two-year-olds, year by year, from now until 1971. The same birth statistics also show a continuous decrease in the novice instructor group (twenty-six to twenty-nine years) for the next several years with no increase beyond the present number until the late 'sixties. Consequently, as the number of college students continues to expand, it will become increasingly difficult to prevent college faculties from shrinking as more teachers retire and fewer enter the profession.

The question, How many students can an instructor teach? is one which instructors find difficult to approach in an impersonal manner, and one which brings forth a variety of answers. My experience shows that a class of twenty students is the

best size. We get more done; we progress faster; we have more discussion; the student learns most efficiently in a class of twenty. As the number increases the rate of learning declines because discussion diminishes, I get around the class less frequently, and we have less written work. Classes above thirty I find very slow to learn. It is difficult to set down and defend exact limits of class size, but an experienced teacher gets the feel of the class. He can sense when it is too large or too small for effective learning. These are typical of the replies received from college teachers when each is asked what is the optimum size of class for his course. In a recent survey the vast majority of a faculty picked numbers between fifteen and twenty-five as the proper size for their classes. Some thought they could go up into the thirties "without losing too much," and a very few mentioned forty to fifty as possibilities under certain conditions.

Each instructor was probably correct when he stated that fifteen, twenty, or twenty-five, was the best size for his class. The size stated was the most efficient for the method of instruction he used. Why does he use that method? Probably because it is the method by which he was instructed in his favorite courses by the professor whom he admired above all others—a method handed down from generation to generation through an endless dynasty of scholars. He enjoys that method; it is appropriate to scholarly pursuit; it is effective. Why experiment with a new approach thought up this morning by a dreamer who knows nothing about the subject being taught? Why make guinea pigs out of a good class? Why risk one's established reputation in the profession? Limit the class to twenty, and let the administration provide whatever funds may be needed to run the college on a sound scholastic basis.

EDUCATION is "a personal matter," wrote President Nils Y. Wessell of Tufts College recently. "Nowhere is this more true than at the college and university level. Individualized education is most readily achieved when there is an intimate relation between teacher and pupil." Here, nicely expressed, we have the traditional view of the educational process. Nearly twenty-four hundred years ago Socrates spoke of the teacher as a midwife attending and assisting as the pupil labors to give birth to an idea. Some eighty years ago James A. Garfield is supposed to have coined the frequently repeated definition: "A university is Mark Hopkins at one end of a log and a student at the other." These are but three of perhaps thousands of authoritative pronouncements characterizing education as an intellectual development that arises out of a close personal relationship between student and instructor. Such concepts emphasize the importance of small classes. The smaller the class, the more effective the teaching. For the best possible results the class should be limited to one student.

It is readily admitted that a child who has a private tutor can, in a few years, learn far more than a child who attends regular school classes. Yet the millions of Americans unable to afford such a luxury have found a very serviceable substitute in the

public schools. So will it be on the college level. Small, high-tuition colleges will continue to serve the few who can afford to pay the rapidly rising cost of instruction by means of small classes and close personal contact between student and instructor. The great majority of students, because of exceptionally high financial or scholastic barriers around small colleges, will throng into the public universities where provision for their instruction must be made.

How many students can an instructor teach? The experienced teacher can arrive at a close estimate by setting up his time budget. He requires each student to write so many reports and so many examination papers, each of which takes so many minutes to read and grade. It takes so many hours to prepare for each hour in the classroom. Committee meetings take so many hours a month, and so do private conferences with the students. If the teacher believes that fifty to sixty hours per week on the job are enough to earn his salary, he arrives at his upper limit of students—a number that to him is large but a number that is likely to be hopelessly inadequate if the shrinking band of instructors is to meet the expanding horde of tomorrow's students. He must teach more, and he must do so without "watering down" the course and without overtaxing himself by additional work. In fact, it is to be hoped that new instructional methods can be devised that will enable the instructor to teach many times his present number of students with less time and effort than he puts into the job today. First, however, we must approach the question repeated at the beginning of the paragraph from a point of view entirely different from that of our standard, traditional classroom procedure.

It is improbable that any serious argument would arise among educators over the assertion that learning is a personal matter. Learning implies action on the part of the learner. The speed and thoroughness of the learning depend upon his intelligence and the efficiency with which he applies himself to the task. The teacher usually winces when he hears his function defined as "learning" the pupil. Although few people today commit such an error in grammar, there are probably many who commit a corresponding error of thought when they speak of "teaching." It is the teacher's job to do something to the pupil that makes him learn. The pupil cannot be expected to learn unless the teacher continues to do that "something" to him. Just as the motorist drives his car to the pump at the filling station, the student comes to class, removes the cap from his mind, and expects the instructor to pump in fifty minutes' worth of information leaded with wisdom. Education in the United States would take a great step forward if all students (and their parents) could be disabused of such concepts and could be made to realize that the extent of their education will be determined by the extent to which they exert themselves in its pursuit.

LEARNING, then, is a personal matter, but must the same be said of teaching? Must the teacher always remain in close personal contact with the student if the latter

is to learn? Not necessarily. This is just an inherited attitude toward education that is as old as the human race. For uncounted ages teaching has proceeded in that traditional manner—parent to child, craftsman to apprentice, philosopher to pupil, teacher to small class. Only occasionally in recent decades has mass instruction been attempted—usually as a last, desperate effort to handle a suddenly expanded enrollment. Most teachers would not like to lecture to a thousand students in a great hall. Many of the students in such a class would feel that they had somehow been cheated. Everybody prefers small classes—instinctively—and so, as soon as the pressure is reduced, the big class is cut down to size. Consequently, teaching on a large scale has never been given a fair trial in this country. Naturally, it has not worked very well.

What, specifically, are the objections to the large class? Passing over such correctable drawbacks as poor ventilation and acoustics in the big lecture hall, and distractions, we come to various pedagogical blocks. Professors in a number of subject-matter fields readily admit that they could present their more elementary courses in lectures before classes of several hundred students provided such classes were broken up into small groups for discussion at least once a week. Furthermore, a number of graduate students or part-time readers would have to be engaged to read and grade the bushels of papers that the students would have to prepare and hand in.

Formerly, students were called upon to "recite" regularly in class, and the instructor marked down a record in the class book after each recitation. The modern student responds more informally by discussing the material with his classmates and the instructor. In both procedures a small class is necessary in order that each student may participate in the class work frequently. Recitation, discussion, and written exercises enable the instructor to gauge the learning process and to correct errors as the work proceeds. In some college courses it is essential that such devices be used. However, in a great many courses their chief (if not only) purpose is to make sure that the student studies the lesson regularly each night and gets some of it into his head. With few exceptions, it seems that the student must be continually prodded if he is to take advantage of the opportunity given him. A zero in the teacher's record book, a poor performance before his classmates, exclusion from sports and social activities continually threaten him, and, in general, such negative incentives suffice to drive him through the work of the course.

In American education we do not spread the intellectual repast before the student and invite him to partake. It would seem that we do not dare take the risk lest he sit before the feast and starve to death. Instead, we spoon feed him bite by bite, and we even "burp" him from time to time, too. Over the years this method of education has spread upwards through the grades of the lower schools until we now find it prevalent on the college level. Needless to say, it has added enormously to the cost of higher education. Furthermore, the more the student depends

[*Continued on page 112*]

· With the · Technicians ·

Toward a More Effective Freshman Advisory System[1]

Of the many questions confronting undergraduate faculties and administrators, that of providing a satisfactory system of student advising has consistently proved to be one of the most difficult. Every year the average college receives letters and questionnaires from other institutions indicating dissatisfaction with their systems for advising students and seeking suggestions for improvement. That advising plays a cardinal rôle in undergraduate education is a principle upon which there can be little disagreement. As Severinghaus, Carman, and Cadbury put it in their new and provoking *Preparation for Medical Education in the Liberal Arts College:*

> . . . in every institution of higher learning some provision must be made for an advisory relationship worthy of the name between students and faculty. It is our collective opinion that only through such a thoughtful relationship can the spirit of learning be properly nurtured.[2]

The advisory problem is most acute at the freshman level. The upperclassman has resolved many of the conflicts of competition in a more intense environment, of living away from home, of not knowing where to turn for advice, and the like. Unless he is really troubled, his dependence upon his faculty adviser is often limited to help with his choice of courses; if he seeks a warm, affective personal relationship which, for one reason or another, he cannot establish with his formal adviser, he may often turn to other faculty members with whom he has better rapport.

Union College, in common with many institutions, has over the years tried various systems of freshman advising, with dubious results. In the last five years, however, there has been developed a procedure which gives every evidence of being a decided improvement. Simply stated, it involves having the Freshman choose, from among his own instructors, that faculty member whom he would like as his adviser. Credit for the original insights and suggestions which led to the present plan belongs entirely to Philip Stanley of the Philosophy Department who reasoned as follows:

a. Freshman advising is, in large measure, a matter of providing some degree of casual emotional support, of explaining the elementary facts of academic life to the beginner and of referring him to the various campus "experts" (including a clinical psychologist for problems which require special help).

b. Advising, if it is to approach its goal, must be predicated upon adequate rapport, and this might be much better achieved by allowing the Freshman some element of choice in the personality of his adviser. To quote Mr. Stanley, "Unpaid, overtime, nonprofessional advising will work, if it works at all, if there is some kind of friendship involved. We'll do things

[1] Reported by C. W. Huntley, Dean, Union College.

[2] New York: McGraw-Hill, 1953, p. 22.

cheerfully for friends we only do grudgingly as duty added to teaching and research. The student is given the basis for friendship in being allowed a free choice. But the adviser is also brought into rapport by knowing that he was chosen."

c. If the adviser sees the student in class two or three times each week not only will he be able to see trouble brewing before it becomes overt, but he will have an easier working relationship with the advisee and the need for formal and time-consuming conferences will be at a minimum.

Time has borne out the essential soundness of this reasoning. Severinghaus, Carman, and Cadbury are in apparent agreement, for in describing the Union College advisory plan, they comment, "Many existing systems could probably be improved by allowing the student to select his adviser."[3] Psychologically oriented readers will detect, in passing, a similarity to Moreno's thinking in his book *Who Shall Survive?* in the expression of preferences by the student.

In actual practice the procedure is as follows. Each spring a panel of freshman advisers is made up from among faculty members who will teach in the fall one or more sections of a freshman course, and who will not have upperclass students as advisees. This list is given to the beginning student before classes begin with the instruction that he is to think about each of his instructors on the list in terms of the one that he would most like for his adviser, the one who would be his second or third choice. Approximately three weeks after classes have begun, the Freshmen are called together, and each student is given a card upon which he writes his preferences. It is explained to him that the chances are excellent that he will be assigned to the instructor of his first choice, but that this cannot be worked out in all instances. In passing it should be noted that not all students have an equal number of choices, since not all staff members teaching freshman subjects are included in the list. The fact that there is a three-week period in which the entering student has no adviser has not appeared to be a serious factor, since practically all freshman course programs are arranged before the student arrives on campus.

Sorting the preference cards and making the assignment originally caused concern, for the average faculty member is understandably sensitive about any procedure which reveals his acceptance by students. In proposing the system, the advisers were guaranteed that only one person would know the outcome of the choices. This confidence has been kept, and apparently respected. The actual procedure involves having the writer lock himself in his office for an afternoon and making an initial sorting of the cards by first choices. As might be expected, some instructors receive a much higher share of first choices, which is a function not only of the affective relationships involved but of the number of Freshmen that each of the advisers has in class. Since the load must be distributed in an equitable manner and since each adviser should have not more than ten students, a partial re-sorting of the cards is always necessary. The percentages of first, second, and third choices assigned has been surprisingly similar during the five years. Those for the current year are: 64 per

[3] *Ibid.* p. 27.

cent of the Freshmen were assigned to the adviser of their first choice, 31 per cent their second, and the remaining 5 per cent their third.

Each instructor is given the "personal data sheet" of each new advisee. These records include a photograph of the student, relevant facts about his preparatory record, College Board scores, a profile of his freshman test data, and related information. These records are returned at the close of the year with any notes and comments that may be added by the adviser and are then sent to the upperclass adviser. Ultimately they are returned to the office for inclusion in the student's permanent folder.

By way of evaluation, it should first be pointed out that the value of any system of advising is determined partly by its acceptance by the individuals concerned. While direct evidence bearing upon this point is difficult to obtain, it may be reported with a fair degree of confidence that the present scheme is considerably better than previous ones. It was preceded by an arrangement in which students were assigned more or less arbitrarily to various faculty members whose teaching-load was reduced three hours as a compensation, whereas the present plan makes no such allowance. In spite of this, the current program appears to be much more cordially received. The objections raised previously seemed to focus primarily upon the fact that the adviser had little casual contact with the student and meeting was largely limited to formal conferences. When one recalls the reluctance and apprehension with which many students approach such interviews, the point becomes all the more important. Undoubtedly one of the main reasons for the success of the present plan lies in the fact that there is frequent and natural contact between the student and his adviser, with an element of acceptance on the part of the student since the choice of the adviser was his, and an important element of ego-involvement on the part of the instructor because the advisee is one of his own students and he himself was chosen.

The fact that there is frequent contact between the student and his adviser makes for a generally stronger and more effective guidance program throughout the College. As already mentioned, for example, the adviser may easily suggest (but not demand) that one of his students discuss his problems with the Counselor to Students, who is a clinical psychologist. The psychologist, in turn, may be more effective because of the information about the student which he obtains from the adviser.

Union, in common with many colleges, has a faculty committee which acts upon the standing of students. Such a committee is charged with the responsibility of arriving at decisions which are of the gravest concern to the student, yet often faces the danger of serious omissions in its knowledge about the individual. Part of this gap is closed by asking the adviser, before the committee meets, for a statement about each of his students who may be in academic difficulty. Experience indicates that the present system of freshman advising yields more pertinent and more detailed statements for the guidance of the committee than was the case previously.

There is one standard and repeated objection to this plan, an objection raised by faculty members on departmental lines. They argue, understandably, that future economists can be advised only by economists, and chemists by chemists. Approval of the plan was achieved initially in part by stressing the point that freshman advising is not normally a curricular affair, but rather is centered about a personal relationship. When a question of curriculum or course comes up, the freshman advisers are encouraged to send the student to the appropriate departmental chairman for his advice. In the spring when the Freshmen are thinking about a choice of major, the advisers may suggest that they talk with several other faculty members. Then, when their tentative choice is made and they are assigned to an upperclass adviser in the department or division of their choice, it is he who gives the principal advice about the selection of courses. One important point of procedure should be added here. In every possible instance, the freshman adviser is given the name of the upperclass adviser to whom each of his students is going, in order that he may pass along to the new adviser any special knowledge or suggestions that he may have about a particular student. While this is an ideal which is not always carried out in practice, there is at least a channel for providing some continuity and articulation between the freshman advising program and the upperclass work. In the instances in which such continuity is thought to be especially important, as for example in the pre-medical program, it is still possible to retain the element of choice of adviser by having several members of the pre-medical group included in the list of freshman advisers.

In summary, it should be observed that any system of advising and counseling is most directly a function of the caliber of the individuals who are doing the job. At the same time, the effectiveness of each person will be enhanced if he accepts and approves of the system within which he works. This would appear to be the chief merit of the present plan.

Study-Skills Programs[1]

Study-skills programs are becoming more numerous in colleges. Twenty-four institutions were planning to begin such programs during the last academic year. From 7 to 1,400 students are enrolled in institutional programs in this country, and all programs in which evaluations have been undertaken report favorable results. However, most of the programs have grown up in a haphazard fashion without the benefit of the experience of others, since experience in this field has not often been reported.

The University of Maryland began a study-skills program in 1947, and it, too, grew out of experimentation at Maryland largely, rather than as a result of the experiences of workers in other institutions. However, a study was undertaken in 1953 to survey and evaluate both the program at Maryland and other programs in operation.

Most study-skills programs offer their services to a limited part of the school population: Forty-two per cent admit students who voluntarily come

[1]Reported by Walter S. Blake, Jr., Instructor, Dean of Students' Office, University of Maryland.

and those who are referred to the program by some teacher or officer, 40 per cent admit only voluntary students, and 11 per cent require all Freshmen to enroll (with a few taking voluntary students as well). Six per cent of the schools did not reply to this part of the questionnaire.

The wide variation of admission policies is surprising since the consensus is that any study-skills program is composed of guidance services which should be available to all the students if the program is to attain its greatest effectiveness. All entering Freshmen should be assigned to a program designed to indoctrinate them in the life on campus and the minimal skills needed to achieve their goals at college and afterward; and the services of the program—tutorial, remedial reading, study skills and reading courses, counseling, and the like—should be open to all students on campus who feel a need for such services.

The remedial aura still surrounds and plagues study-skills programs, in general. The remedial phases of most programs take precedence over the preventive phases, with the result that very few schools make provisions for helping any students other than those who must be helped. The average student is obliged to struggle along without assistance until he, or some faculty member, notices that he is about to fail out of college, at which time remedial measures may be taken, if it is not already too late. In most institutions where no required program for Freshmen is offered, faculty referrals and self-referrals are the only means available to help prevent academic failure and social maladjustment.

Program-planning with students is conspicuously lacking in many of the programs surveyed. Small staffs and insufficient operating funds usually account for this; yet the absence of student-faculty planning is a serious shortcoming. The types of services offered should be the result of student-faculty planning, based upon research findings. One way to ensure student participation in the program is to incorporate student-faculty planning as a part of the program itself. Useful methods to this end are: written student evaluations, soliciting student suggestions, interviews with students, consultation with student-government leaders, and regularly scheduled student-faculty meetings. The main point here is this: needs seen by the faculty are not necessarily those which the student sees—a well-known fact often overlooked. A well-trained faculty may know more about what students need than the students themselves, yet this obviously does not guarantee that the student will accept a program planned entirely by faculty members. Student-faculty planning might well be termed a "calculated risk" in the study-skills area; but it seems no less essential than in any other situation where democratic procedures seem likely to produce the best results.

Research is being done neither in the minimal quantity necessary nor in the areas where it is most needed. The quantity of research needed will necessarily be governed by needs of individual programs; but every program needs research of the kind which will indicate whether the program is achieving set goals, and what needs to be done to improve

the program. While it is true that program workers spend most of their time giving service (as do most people in the various branches of the teaching profession), it is equally true that a part of every worker's time needs to be devoted to research in the program if it is to be successful, and if the workers are to have confidence in the program as well as their part in it. Research is needed particularly in these areas: program evaluation, program improvement, and validation of diagnostic instruments.

Over half (51 per cent) of the programs surveyed do not give academic credit for participation in the formalized parts (classes in study skills and reading, mainly) of the programs. Credit is "expected" by college students for work done under the auspices of the institution, out of habit and tradition. Good or bad, it is none the less true that college credit is a motivating factor with college students—perhaps the most important single motivating factor. It is also true that his own initiative is important to any student's success or failure in meeting or solving his problems. Therefore, it seems important to make the process of problem solving in any group guidance situation as profitable as possible to students in order to encourage initiative. Some workers who do not give academic credit feel that some of the services rendered and some of the course materials and techniques used are not "college level" in terms of the conventional college-level courses. While such may actually be the case in many programs, the failure to grant some credit for work accomplished may doom good programs to ineffectuality, no matter how fine such programs may be potentially.

Study-skills programs need workers specifically trained for them. At present nearly all workers are educators, psychologists, or other kinds of specialists not necessarily trained to be workers in study-skills programs. Workers who have majored in areas such as education and psychology might have some of the general qualifications needed, such as the desire to work with students, but workers have the special qualifications needed only by chance. For example, educators do not usually learn abnormal psychology in their curriculums, and psychologists do not learn teaching methods; yet both abnormal psychology and teaching methods are acknowledged by program workers themselves to be important special qualifications desirable for their work. Only one institution, out of the many questioned in the survey, offers a training program specifically for workers in study-skills programs, yet hundreds of persons are now employed in such programs, and 24 institutions plan such programs for the immediate future.

Study-skills programs are not publicized adequately, as a rule—indeed, some are kept on a "confidential" basis among staff members. This reticence on the part of program workers to make their services known does a disservice to the student body and also prevents the programs from reaching their maximum level of effectiveness. Evidence points to frugal financing of such programs as the basic reason for curtailed services as well as lack of publicity about

[*Continued on page 114*]

·The·Reporter·

A RECENT survey at Rutgers University showed that scholarship holders, who constitute less than one-third of the student body of the men's colleges, hold 75 to 85 per cent of the more responsible undergraduate positions on the campus. They also consistently maintain a higher academic average than the other students. The University is trying to interest industry, foundations, and individuals in giving more scholarships.

A GRANT of $71,600 has been made by the Maurice and Laura Falk Foundation to Michigan State College to establish a graduate fellowship program in political science. It will begin in the fall of 1955 and continue through 1958. It will provide fellowships at $1,800 each for five doctoral students the first year, ten the second year, and fifteen in 1957–58. Other money from the grant will provide for travel allowances to Falk fellows, visits to the campus by guest lecturers and political leaders, and salary for a half-time director of the program.

A NUMBER of graduate assistantships for young women interested in preparing for guidance and personnel work in high schools, colleges, and universities will be offered in 1955 by Syracuse University. The assistantships will include room, board, and tuition, equivalent to a grant of $1,600 a year. The usual appointment is for two years, on a half-time work and study basis; sometimes one-year awards are made to applicants on leave from student-personnel positions. Each assistant will be placed in charge of a group of students in residence, and practical aspects of class assignments will be carried out in connection with the program of the office of the dean of women. Information and application forms can be secured from M. Eunice Hilton, director, Student Personnel Graduate Program.

FELLOWSHIPS for advanced study abroad during 1954–55 have been awarded by Rotary International to 112 graduate students from thirty-three countries. Rotary Fellows are chosen from candidates endorsed by Rotary Clubs in their own towns. Candidates must be from twenty to twenty-nine years of age. They must have a college or university degree, a record of high scholastic standing, and a thorough knowledge of the language of the country in which they propose to study. They must have the ability to make friends easily, be internationally minded, and possess leadership ability. Fellowships are granted without regard to race, creed, or citizenship.

A SMALL, lensless microscope and a very fine needle are helping scientists penetrate the secrets in the atomic structure of solid surfaces. This equipment is part of a field emission microscope, invented by Erwin W. Muller, professor of physics at Pennsylvania State University, with which he is able to view the atoms and

molecules which make up our world.

The microscope consists essentially of a needle—a thousand times sharper than the sewing variety—sealed into one end of a cone-shaped vacuum tube. The needle is pointed at a fluorescent screen, about two inches in diameter. When a certain amount of high voltage is applied to the needle, electrons are pulled off the atoms in its tiny, rounded tip. By using positive ions—atoms which have fewer electrons—it is possible to distinguish details on the needle surface down to one hundred-millionth of an inch, instead of one ten-millionth as previously.

Thus far, Muller has made a great number of things happen on the tip of that needle. Chemical reactions occur at its surface. The formation of alloys is studied there by the evaporation of foreign metals. High temperatures and various voltages are applied to see what changes occur in the surface atoms and molecules.

Through sheer deduction, Mr. Muller explains,

> chemists and physicists had figured out the atomic structure of many substances. Then, we got a chance to see these structures with our own eyes. It turns out that the deductions have, by and large, been very accurate.

A FIVE-YEAR series of summer programs dealing with regions of the world particularly important to United States interests will begin next June at Ohio State University. First of the programs, from June 20 to July 22, will be devoted to the Far East. It will include a group of full-credit university courses at both the undergraduate and graduate levels. These will offer basic instruction in the geography, ethnology, politics, literature, fine arts, and education of the countries of the Far East. Supplementing the course work there will be public lectures, exhibits, conferences, social activities with students from the Far East, and other features. Plans for the five-year series have been developed by the university's Committee on International Studies. Later programs will deal with the Middle East, Central Europe, Latin America, and Eastern Europe. A limited number of scholarships will be available.

THE Detroit Board of Education has appropriated $104,000 to build educational television studios at Wayne University and at the Detroit public schools radio station, WDTR–FM. A third studio will be built by the University of Detroit. All three studios will be used by the eighteen cultural and educational groups who are members of the Detroit Educational Television Foundation, which is sponsoring the new noncommercial station UHF. The Foundation has raised nearly $400,000 from private sources to provide equipment. It is expected that the station will be on the air by April, 1955.

A WORKSHOP on organization and administration of student-personnel programs will be held at Claremont, California from June 27 to July 22. It is sponsored by the Claremont Summer Session (the Associated Colleges at Claremont) and the Western Personnel Institute, and is designed for deans of students, directors of personnel programs, junior student-personnel officers, and graduate students. Membership will be limited to thirty-five. It carries four units of graduate credit in education or

psychology, but persons not interested in credit may participate. Dean Daniel D. Feder of the University of Denver will be the director.

PROGRAMS in hotel, restaurant, and general institutional management leading to the Master's degree began at Michigan State College last fall. The new graduate program was started because of the demand from students and industry. Courses at the graduate level will include accounting, economics, and general business, in addition to seminars devoted to the student's major area.

Six new courses are offered at the undergraduate level: introduction to hotel management, introduction to restaurant management, food cost accounting, problems in college housing and student-union operation, financial control of institutional management, and commercial kitchen design and layout. An important feature of undergraduate work is the requirement that each student be employed in his chosen field for at least ten weeks during the summer.

GRANTS totaling $124,000 for the support of scientific research have been made since July 1 by the Research Corporation, New York. These grants will support research in the physical sciences and mathematics in twenty-seven colleges and universities. The Corporation, which was established as a nonprofit foundation in 1912 by the late Frederick Gardner Cottrell, has distributed more than $8,000,000 for the support of basic research, aid to scientists in the smaller colleges, and nutritional programs in many parts of the world. The total sum includes grants in the physical sciences under the Foundation's own programs and grants under the Williams-Waterman Fund for Dietary Diseases, which is administered by Research Corporation.

THE schedule of Leo M. Franklin lectures in Human Relations for the current year has been announced by Wayne University. These lectures were established in 1949 by the Board of Trustees of Temple Beth El and the Detroit Board of Education in honor of Mr. Franklin, who died in 1948 after serving for forty-two years as Rabbi of the Temple. Wayne University annually selects a faculty member as holder of the lecture chair; speakers include the chair holder and four others selected by him. Arthur Kornhauser, professor of psychology, holds the chair this year. The speakers for this year and their topics are: Robert S. Lynd, "Power in American Society as Resource and Problem"; Harold D. Lasswell, "Political Power and Democratic Values"; A. H. Maslow, "Power Relationships and Patterns of Personal Development"; C. Wright Mills, "The Power Elite: Military, Economic and Political"; and Arthur Kornhauser, "Power Relationships and the Rôle of the Social Scientist."

FROM the Ford Foundation, Boston University has received $200,000 for the development and support of its African Research and Studies Program. The program was established a year ago to train specialists, to promote the study of African affairs by Boston University students, to carry on research in the field, and in general to increase the knowledge of indigenous problems.

·Editorial·Comments·

Toward Adequate Provision of Scholarships

THERE is an increasing need for greatly increased scholarship assistance to promising students if higher education is to meet the needs of the second half of the century, and if we are not to continue wasting a large part of the talent represented by the abler secondary-school graduates. It is clear that we are making important progress toward meeting this need.

One of the most encouraging developments is the increasing tendency of business corporations to establish programs of sponsored scholarships. A survey of 452 such programs published by the College Entrance Examination Board in September, 1952, showed that 225 of them were financed by business firms and associations. At that time, forty out of the one hundred largest manufacturing corporations were providing some scholarship aid. Among the companies having scholarship programs were such well-known ones as General Electric, Ford, International Harvester, Sears-Roebuck, Westinghouse, and Kroger. No doubt both the number and the size of business-sponsored scholarship programs are considerably greater today.

The most recent example of increased activity in this field to come to the attention of the writer is that of General Motors. On January 18, this corporation announced a program under which, when it is in full operation, fourteen hundred undergraduate students will be receiving grants up to $2,000 a year, depending upon "demonstrated need." This program is in addition to other forms of aid to students and to institutions that the corporation has been providing and will provide in its new program.

A different phase of the current progress is the work of the Council for Financial Aid to Education, which was organized in 1952 for the purpose of encouraging greater private support of higher education, particularly by business corporations. The Council from the beginning has emphasized the establishment of scholarships as one of the important ways in which business can aid in increasing opportunities for higher education. It is significant that the first of its series of leaflets on the nature and needs of higher education in the United States dealt with this subject.[1]

Last year the Council inaugurated a nation-wide study of the policies and methods of the largest United States corporations in extending aid to higher education. Eleven hundred questionnaires were mailed to the largest manufacturers and to selected banks, utilities, and insurance companies. At the same time a study was made of the needs and development programs of colleges and universities through a questionnaire mailed to more than thirteen hundred four-year degree-granting institutions.

[1] "Sponsored Scholarships as a Financial Aid to Colleges and an Opportunity to Enrich America." New York: Council for Financial Aid to Education, Inc., 6 East 45th Street, New York 17, N. Y. *See also* the Council's first service publication, *The Role of Corporations in Aiding Higher Education*. New York, 1953.

Both of these questionnaires included questions regarding scholarship funds. No doubt this study will give a further impetus to the development of good scholarship programs.

The adequacy of scholarship provisions depends, of course, not only on the funds available, but on the way they are used. No doubt, wise giving is just as difficult in the scholarship field as in any other type of philanthropy. Here again, there is evidence of progress. The publications of the Council for Financial Aid to Education offer much good advice and report numerous examples of carefully considered programs.

Since the fees a student pays to his college fall far short of meeting the cost of his education, the Council has repeatedly stressed the importance of coupling with scholarship grants "cost of education" supplements in the form of direct gifts to the institutions, especially to privately supported ones. There is an increasing tendency on the part of donors to follow this practice. The new General Motors program, for example, provides for grants-in-aid to private institutions of $500 to $800 for each student holding a General Motors scholarship.

We know that the colleges and universities of the country during the next decade and a half will face a greatly increased demand for their services. Notwithstanding increased scholarship aid from corporations and other donors, the demand for such aid will probably increase faster than the supply. Hence, it is important that scholarship funds be used to the greatest advantage. This means, not only that the terms and conditions of scholarship grants be defined with great care, but also that available scholarships be given to those most deserving in terms both of ability and of financial need. Unfortunately, the record of many institutions in this regard has not been very good. Too often, they have competed for students of outstanding promise through offers of scholarships regardless of financial need. This has meant a misuse of scholarship funds—a kind of waste that will be less and less defensible as the demand for financial aid to students increases.

THE recent establishment of the College Scholarship Service by the College Entrance Examination Board is, therefore, not only important but timely. The purpose of the Service is to help the participating colleges determine which applicants of high academic ability should receive financial help and how much they should get. The establishment of the Service and the affiliation of ninety-two institutions with it "amounts to a joint declaration by the colleges that they intend to award available funds in such a manner that the greatest possible number of promising youngsters will be able to attend college." It is to be hoped that the number of colleges affiliated with the Service will increase rapidly.

The Service has prepared, with the assistance of a committee of experienced college financial-aid officers, a confidential inquiry form on which all family information and financial data pertinent to a candidate's application for aid is entered. When a student applies for admission to any of the participating colleges and requests such assistance, he receives from the college copies of the form

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··Reviews··

A Challenging Report

AMERICA'S RESOURCES OF SPECIALIZED TALENT, *by Dael Wolfle.* New York: Harper and Brothers, 1954. xviii+ 332 pp. $4.00.

The author points out that, with only six per cent of the world's land and seven per cent of its population, the United States has 58 per cent of the world's telephones and 76 per cent of its automobiles. These material benefits are the result of the thought and ability of a relatively small fraction of the American population, but the nation as a whole profits by the modern, scientifically based medicine, agriculture, and industry that they make possible.

In 1900 one youth out of every sixty graduated from college; now one in eight does. At the beginning of the century two-thirds of the college graduates were men; now the ratio is about six men to four women. In 1900 nearly half of the college graduates were trained for law, medicine, dentistry, or the ministry. Now only 8 per cent enter these professions.

Shortages and potential supply in special manpower fields are evaluated. The spread of intelligence in the American population is analyzed. Ninety per cent of college graduates come from the upper half of the total population in measured intellectual ability. Twelve per cent of college graduates scored 140 or higher on the Army General Classification Test; only two per cent of the total population do as well. Geographical and other factors which influence advanced education are assessed. Differences in intelligence level are found in those preparing for various fields of specialization. Physical-science students are very able. Agriculture, education, and physical education attract a less able group. No field of specialization draws exclusively from one class or segment of society. In America the truly talented student is comparatively free to enter any field he chooses.

Many factors bearing on selection in higher education are given; for example, undergraduate students enrolled in Navy R.O.T.C. programs make higher scores on tests of general ability than do students securing Bachelors' degrees in any field of study, and average as high as do advanced students receiving the Doctor's degree. Only 62 per cent of the top two per cent of high-school graduates as measured by intelligence tests graduate from college and only 54 per cent of the top seven per cent graduate. Of the top sixteen per cent, less than half graduate. The motivational, financial, and other factors that lie behind these disquieting findings are discussed.

This informative volume should challenge our nation to provide adequately for that portion of its population which has superior academic ability and a willingness to work hard at intellectual tasks. The reviewer cannot resist adding that to him this book suggests that in curriculum offerings at elementary- and secondary-school, college, and even graduate-school levels every effort must be made in America to provide fully challenging programs of study. Our public education should give the same opportunity that is offered in our best private schools for rapid and advanced training in mathematics, the ancient and modern languages, and in other highly conceptualized fields of study. To do this will certainly advance our national prosperity, our national defense, and even, it may be, our national self-respect.

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Comprehensive in Scope

INTRODUCTION TO INTERNATIONAL RELATIONS, *by Charles P. Schleicher.* New York: Prentice-Hall Inc., 1954. xviii+ 941 pp. $6.95.

This general treatise on international relations is distinguished by its comprehensiveness and scope. It includes a

larger variety of areas than do most textbooks. Moreover, in each area there is a remarkably wide range of coverage. For instance, in treating the ingredients of nationalism, the criteria of national power, the causes of war, the diverse points of view with respect to sovereignty, and the various schools of thought with respect to international law, almost all the elements involved are marshalled with unusual completeness and clarity.

The emphasis is rightly on the dynamic rather than the structural elements of international relations. The author is concerned chiefly with the substance of foreign policy—nationalism, the balance of power, the rôle of ideological conflict, imperialism, the specific policies of the various nations today, the evolution of collective security systems—rather than with the manner in which international relations are carried on. Wisely, only about fifty pages are devoted to the structural mechanisms by which nations in general and the United States in particular conduct their foreign relations. However, the major emphasis in this dynamic approach is on evolving world organization—the United Nations and its various subsidiary and affiliated agencies—and not upon balance-of-power and ideological considerations. Consequently the total effect of this book is somewhat unrealistic, although the author's treatment of world federalism is done with much insight and common sense.

What I consider to be the central fact in the international relations of our day—the anti-imperialist revolutions in backward countries (the Communistic Revolution in Russia is itself a part of this larger movement) and the reaction of the advanced peoples to them—is not adequately treated. Never once is there a clear statement explaining why these revolutions are not only nationalist but also indigenously collectivist. True, on pages 805–807, there is a strong statement of the need of backward peoples for capital, but this is unrealistically linked to the United Nations and not to the indigenous social revolutions, which seek to develop capital in a hurry by regulated economies, controlled consumption, and forced saving—to a greater degree in Communist China, and to a lesser degree in India, where Nehru is attempting a middle-ground policy which seeks both bread and freedom. Indeed, there is a tendency (as on page 474) to view these revolutions as "disruptive" rather than as constructive. This, too, is evidence of a larger failing—a failing common to almost all books on international relations written in the United States—that is, to see the current conflict from the point of view of "our side" rather than intellectually and above the battle. There is also running through the book a somewhat smug suggestion (for instance the statement, on page 319, that the United States must avoid the impression of "trying to pull the chestnuts of the colonial powers out of the fire") that the United States understands the anti-colonial revolutions better than do Britain and France, whereas in fact it is the British and French who understand these revolutions, particularly in their indigenous social aspects, much better than do the Americans. The British Colombo program for helping the underdeveloped peoples is vaster in scope and far more realistic, in its emphasis on the need for capital development rather than mere technical assistance, than is the American Point Four program. Again, when the chips were down it was the French who insisted on a settlement in Indo-China and the United States which resisted. I do not mean to imply that the author does not see the importance of the problem of capital development for the backward peoples, for he does; but in connecting this problem more with the United Nations and with foreign-aid programs like Point Four and Colombo, than connecting them primarily with the social revolutions themselves, he minimizes the real meaning behind the collectivist devices of these revolutions.

In dealing with general principles, the author frequently misses an opportunity to clarify his point by failing to use vivid and concrete illustrations. For instance, on page 120, he examines in general terms the advantages of a complex (or multiple) balance of power over a polarization of power between the United States and the Soviet Union, and then states that there are serious difficulties in the way

of reviving a complex system. It would have been clearer to have discussed this in concrete terms, supplying the evidence for and against the growth of nationalism and Titoism in communist countries and for and against the development of a "third force" around India and around an integrated Western Europe, rather than in general terms.

This treatise suffers the usual weakness of treatises on international relations: it is disparate; the various forces which converge to produce an international situation are never brought together. For instance, the long chapter on the development of state systems is the usual meaningless cataloguing of alliances and wars rather than an integrated story of how in every age national balance of power, imperialism, and ideology intertwine in varying proportions to form a highly complex yet fairly consistent historical pattern. Again, there is lacking a chapter which draws together all of the contemporary forces and shows how these criss-cross and interlace: national balance of power, ideological conflict, anti-imperialist revolutions, and developing collective security. The author discusses all these separately, but he never integrates them. This failure to integrate renders the subject of international relations both less intellectual and less realistic than it can be made. Of course, the interrelating of forces and trends is something that one expects from the creative historian, and it is admittedly rarer among political scientists. However, such omission is particularly unfortunate in this case because of the remarkable scope and range of this book.

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Three Excellent Papers

THE ANNUAL CONFERENCE ON HIGHER EDUCATION IN MICHIGAN. Ann Arbor, Michigan: University of Michigan, 1954. 55 pp. (University of Michigan Official Publication, Vol. 55, No. 98)

This bulletin consists of three formal papers read at the Annual Conference on Higher Education in Michigan during November, 1953. The papers are by President John D. Millett of Miami University, who served as executive director of the Commission on Financing Higher Education; by Thomas R. McConnell, then chancellor of the University of Buffalo, now professor of higher education at the University of California (Berkeley), who was the member of President Truman's Commission on Higher Education who served as chairman of the committee which prepared the summary volume of the report; and by Dael Wolfle, director of the Commission on Human Resources and Advanced Training.

The first two papers are personal expositions of the reports of the two Commissions setting off their differences from each other. The last is a preview of the still unpublished report of the Commission on Human Resources and Advanced Training; while it does not enter directly into the contrast of the first two, it provides some important information and comment that throws new light on the problems studied by the two older Commissions. All three papers are of an unusually high quality and merit careful study by everyone concerned with the future expansion of higher education.

President Millett writes that in contrast with the well-known social goals of the President's Commission, the Commission on Financing Higher Education took the more modest view that it was higher education's task to contribute to society the trained experts, scholars, and professional men it needs. He contends that this can be done better by maintaining the present pattern of public and private institutions in approximate equality, with financial support coming from varied sources, rather than through the expansion of publicly controlled and financed institutions with substantial support from the United States government. He at least questions the desirability of the expansion of the community junior college so that fifty per cent of our youth may receive a minimum of two years of education beyond high school.

Mr. McConnell points out that in present practice there is no sharp differentiation among students who possess unusual talents and are designed for the professions and those of more modest

intellectual endowments who are designed for other occupations, and that plans for higher education based upon such a concept are unrealistic. "If shades and gradations characterize the differences among men, why should not they also characterize their education?" (page 34). We need all the talent we can find and educate, and McConnell sees no difficulty in the idea that graduates of arts colleges may find satisfactory occupations in the traditionally menial, but now well-paid, positions.

This seems to be the major difference between these two papers. Millett is much concerned with the possibilities of government control by federal financial support; McConnell's discussion is curricular rather than fiscal. The two papers, like the reports, are not far apart on the main questions. Millett and the Commission on Financing Higher Education see the desirability of educating twenty-five per cent of our youth to the baccalaureate level; McConnell and the President's Commission put that percentage at thirty-two. The difference is certainly not basic, and both are concerned that colleges now secure only about one-half of the ablest third of our high-school graduates.

Mr. Wolfle reports on studies of what happens to college graduates vocationally. The results show an occupational mobility that is even greater than expected. Only about one-fifth of the employed majors in psychology, for instance, are professional psychologists; one-tenth are clerks, one-fourteenth are engineers, another fourteenth are physicians, and two-fifths are in executive or managerial positions. Such mobility is characteristic of most graduates, and Wolfle points out that it has considerable value in our society, and goes on to advocate that it be considered in the planning of the curriculum of the college.

These are quite inadequate summaries of three excellent papers. The common theme running through all three is the recognition that our colleges are not now making the most of their opportunities for educating the most talented students.

ELMER ELLIS
University of Missouri

Report of a Seminar

MAJOR PROBLEMS IN THE EDUCATION OF LIBRARIANS, *edited by Robert D. Leigh.* New York: Columbia University Press, 1954. x+116 pp. $2.50.

The former president of Bennington College has, since 1947, become very closely identified with library problems and interests. In that year he assumed the directorship of the Public Library Inquiry of the Social Science Research Council, an investigation which resulted in a unique, comprehensive study, in seven volumes and five reports, on the public library in the United States. In 1951, we had *The Professional Education and Training of Library Personnel in New Jersey* for which he served as consultant, and, in 1952, the *California Librarian Education Survey.*

The latest work to come from Mr. Leigh's facile pen is the product of his present professorship at the School of Library Service, Columbia University, and, specifically, of a seminar in Education for Librarianship which he conducted in 1952–53. Mr. Leigh served as editor and critic of the manuscript fashioned from the seminar reports and discussions.

In the opinion of the members of the seminar, and the editor, education for librarianship is today faced with five major problems; to each of these the work under review devotes a chapter. Very briefly stated, the problems are: the achievement of "balance . . . between theoretical training and the learning of practical techniques"; the education of "specialists for special libraries"; the education of "librarians for work in small public libraries"; the disparate nature of "the education of school librarians . . . and that of children's librarians"; and the development of "effective machinery for accreditation and certification" (page 3).

Within the confines of a very short review, it is not possible to describe either the authors' examination of these problems or their concrete suggestions for solutions. It must suffice here to say that the former is thoroughgoing and informed and the latter always forthright and occasionally challenging and fresh.

As there are many lists of books for a

desert island, so each student is likely to have his own choice of "the major, current problems in the field of education for librarianship" (page v). No one is likely to deny, however, that the five problems here discussed are among the most important ones facing the profession today, or that some of the proposed solutions deserve wider discussion and, if possible, experimentation.

Strong objection to several of the proposals is certain; for example, the suggestion of a "single line of education on two levels . . . for librarians working with children and young people" (page 97). Again, the solution proposed for the problem of training village librarians, which is, in essence, a "comprehensive program of in-service training" to be "carried on by regional or district headquarters of library systems with which they are affiliated" (page 96). This would mean, almost inevitably, something less than full professional education as we know it today. Many students of this problem would stoutly maintain that a person living in a small community should be entitled to as good library service as one living in a city. Whether any means can ever be found for achieving this ideal is, of course, a far different matter.

J. Periam Danton
University of California

Broad in Scope

Administration for Nursing Education in a Period of Transition, *by Roy W. Bixler and Genevieve K. Bixler*, New York: G. P. Putnam's Sons, Inc., 1954. xviii+483 pp. $5.90.

This book, by a husband-and-wife team of educators whose names are well known to the nursing profession, comes as a timely addition to the growing abundance of works on administration. Emphasis is given to change as a particular social characteristic of our times and, as indicated in the title, the authors look upon this period as one of transition for nursing education.

Part One is given over to a discussion of by now fairly well-established and widely accepted principles of democratic *versus* autocratic administration. Part Two is concerned with the functioning and processes of administration as applied to institutions of higher education of which nursing education here is considered a part, whether in a hospital or a college. Part Three deals with school operations: curriculum administration, philosophy underlying educational programs, and changing patterns of curriculum as they reflect this philosophy. Engineering is used for illustration since the authors believe that the curriculum changes in this profession are analagous to those in nursing. This part, which seems outstandingly stimulating and helpful, deals also with personnel, public relations, and research. The authors avoid wordiness and vague theorizing; their challenge to administrators is direct. They do not make the mistake, however, of presenting what is complex as if it were simple. Part Four gives a survey of regional as well as state and national planning for nursing.

From this brief summary, it can be seen that the content of the book is broad in scope, ranging from general administration to its application to institutions of higher education and, more specifically, to schools of nursing. Although the ideas and methods presented are derived mainly from the fairly large body of literature on administrative science, a discussion of its relevance and mode of application to nursing education cannot fail to be of interest and use to members of governing bodies and committees, to administrators of hospitals and educational institutions, as well as to a large segment of the nursing profession.

It is to be hoped that this book, which is a "must" on the reading list of all who would be intelligent about the problems in nursing today, will serve to focus attention upon one of the most controversial fields of education. It is very important that administrators of colleges and universities and other representatives of higher education in the United States have the background presented in this volume in their consideration of problems of support for nursing education in the years ahead.

Theresa I. Lynch
University of Pennsylvania

One of a Series

THE UNIQUE INFLUENCE OF THE JOHNS HOPKINS UNIVERSITY ON AMERICAN MEDICINE, *by Richard H. Shryock.* Copenhagen, Denmark: Ejnar Munksgaard, Ltd., 1953. 77 pp. Bound, kr. 17.50; unbound, kr. 14.

This book is an expansion of an address to the Scottish Society of the History of Medicine at Edinburgh given in 1950; it is being published simultaneously as the tenth volume in the series of "Acta Historica Scientiarum Naturalium et Medicinalium," issued by the University Library, Copenhagen.

The reason for the wide distribution of the 62-page book begins with the 91 appended notes, indicating depth of inquiry, but more particularly breadth of approach and emphasis on special features of the story of its influence on the evolution of education in the United States.

"Although still a young institution, Johns Hopkins [University] is the oldest university in the United States," is the opening sentence (page 7). There follows, "Nothing like this emphasis upon the advancement of knowledge, as distinct from the transmission of learning, had been known before in this country"; and " . . . when one speaks of a university, of course, the word is a symbol for the men who were gathered together in its name" (page 8). The mere mention of the names, now so distinguished, of so many of the faculty of the University and its School of Medicine, sustains the author's thesis. The student body, its selection and the required preparation, interestingly enough compared with then and now for desirability, and the freedom for individual growth in the stimulating environment, are stressed. Traditional requirements were reduced to allow concentration of students' time in elective subjects and "they insisted that the School become what no American medical college had ever been; that is, a center of basic as well as of applied science" (page 20). Justification of the program, in its turn, is emphasized by the influence these students exerted in their maturity on American medicine, its practice, its teaching, and its expansion with new knowledge.

Shryock's thumbnail sketch is replete with information. It is impossible to do more than mention a few details like bedside teaching and further opportunity for graduates in medicine, not only in the laboratories of the School, but also in the wards of the hospital as staff officers. Many of these innovations, as is well known, were adopted by schools generally and have become law, a principle that the original Hopkins group surely would not have advocated.

For the informed this book should recall many details including the question of why the School of Medicine and the hospital were separately located; for others, always the large majority, it should be a stimulant for further knowledge of this very important story of medical education in the United States.

M. C. WINTERNITZ
Yale University

Tediously Spun Out

THE HUMAN ENTERPRISE PROCESS AND ITS ADMINISTRATION, *by William Brownrigg.* University, Alabama: Unisity of Alabama Press, 1954. viii+ 232 pp. $4.50.

Administration is viewed here not as a complete entity, but only as a means to an end. "The generic entity to be analyzed and understood is *the total dynamic process of cooperative human enterprise, per se*" (page 10). A human enterprise is defined as any undertaking of an individual or group, regardless of its size, importance, or complexity. In an effort to identify various sources of conflict and difficulty that are encountered in administering complex enterprises, Mr. Brownrigg has sought to delineate the process through which all co-operative human enterprises are conducted. Although his primary orientation is that of public administration, he proposes a schema purported to apply to the gamut of individual and group enterprises.

Human enterprise is conceived as

> . . . composed of three essential, co-ordinate, functional parts. First, the determination and decision of what the human enterprise is to be. Second, the administration or execution of the work required. Third, the utilization of the advantages and the endurance of the disadvantages of the enterprise,

and the absorption of the reactions, thereto, by all who are affected by the enterprise in any way (page 12).

Each of these functions—enterprise-determination, enterprise-administration, and enterprise-utilization—is in itself a process, functionally and reciprocally articulated with each of the other two. The process is schematized as a three-linked endless chain. Each individual is party to a host of human enterprises, and in each may occupy more than a single rôle in respect to this tripartite division of function. The author elaborates upon his paradigm by listing, and illustrating, the series of steps, or thoughts and actions that he maintains are necessary for the successful conduct of the human enterprise process.

For recognizing the need for developing a "theory of administration," and for venturing toward this end, Mr. Brownrigg deserves commendation. His analysis, however, provides at best only a rough taxonomy of phases of the human enterprise process; a series of *a priori* propositions that perhaps may possess some rule-of-thumb value for practicing executives and trouble shooters in industry or government, but that are of dubious worth for research purposes. Current social-science research on group behavior is ignored, and the few references cited are, for the most part, secondary sources. The thesis is developed in such general terms, and with such utter disregard for operational definitions, that there is no firm ground on which to argue against it; but by the same token, it does not lend itself to the generation of testable hypotheses. Like most taxonomies that masquerade as theories, it is essentially sterile, and lacks the rigor and precision required of an adequate hypothetico-deductive conceptual framework. Condensed into the compass of a short popular article for a personnel or industrial management journal, the material in this book might merit passing interest as a check list for evaluating administrative practices. But tediously spun out to book length and presented under the auspices of a University Press, this material appears superficial and pretentious.

ANDREW W. HALPIN
Ohio State University

Culture and Education

THEODORE BRAMELD

[*Continued from page 68*]

It is more within my province to suggest to the educator how he might strengthen his own co-operative rôle. His first obligation, so it seems to me, is to take inventory of the most pervasive and fundamental issues confronting education when that institution is viewed not so much from within as from without—that is, in the perspective of the culture of which it is an indigenous and potent agent. With this inventory at hand, his task is to come to grips with the premises and postulates—that is to say, the theory—of culture itself. This is an obligation which thus compels him to rediscover and reassess as much as he can of the central findings of the cultural expert, findings both in the way of positive principles and in the way of problems still awaiting resolution. His third and final task is then to relate the first and second tasks to each other through the medium of proposals for educational experimentation at the level of action.

[Vol. XXVI, No. 2]

The Quest for Competent Instructional Staff

RAY C. MAUL

[*Continued from page 74*]

ments for appointment, advancement, security, and retirement, along with the many other specific elements which comprise "working conditions." Surely such practices and policies, along with basic salary, will go far in determining the vocational choices of the scholarly students who must be courted in larger numbers.

[Vol. XXVI, No. 2]

How Many Can We Teach?

ERNEST H. CHERRINGTON, JR.

[*Continued from page 93*]

upon the instructor to give him his education the poorer that education will prove to be. Conscientious assimilation of carefully recorded lecture notes will generally put the essentials of the course into the mind for a while. However, the student begins to learn intensively and extensively only when enthusiasm, kindled by the instructor's skill, drives him into the library and laboratory to explore on his own. That is education at its finest. Mark Hopkins is usually needed to start the chain reaction of learning, and he should reappear occasionally to check the operational efficiency, but at the college level he should be able to operate many logs simultaneously.

So it would seem that in many instances the optimum size of class is not a magic number at which learning proceeds with the utmost efficiency. Rather the optimum size of class is determined by the amount of effort which the instructor must devote to browbeating and prodding each student into action. If the class is large, the instructor has not the time and energy to drive the students hard enough to produce the desired results. If the class is small, the lash falls too frequently on the same backs, and again efficiency lags. What we need are more adaptable methods of instruction — methods based upon the assumption that since the student is an adult he should be able to direct his own effort so as to make full use of the opportunity to learn. Why does he not do so now? Simply because he does not have to do it. Young birds might never leave the comfortable nest if their parents did not actually kick them out when they are mature enough to catch their own food and fly to their own shelter.

If we dare to throw increasing responsibility for his own education upon the shoulders of the student, three desirable trends will soon become evident. The number of students which the instructor can teach will increase, the drudgery of teaching will gradually disappear, and the college man of tomorrow will be better educated than his counterpart today. That is the direction in which we must move if we hope to continue to provide higher education for all who want it and can profit from it.

[Vol. XXVI, No. 2]

The Amherst Program

A. B. ARONS

[*Continued from page 81*]

means to examine or study a material object with one's own eyes and mind, he is struck by the importance of this kind of experience and the soundness of its educational impact.

AS THE preceding description shows, this particular course is rigorous and demanding. We think that it is proving successful, not in terms of response to a "student evaluation," but in terms of certain tangible results; namely, the participation of the students in the demanding work without resentment and with a growing perception that intellectual effort, although difficult, is worth while; and evidence in their writing in the English course that they are

absorbing some sense of the methods and nature of physical science. As a less tangible item, the course is in good repute among the students.

We are fully aware, however, that any measure of success the course attains is predicated upon the pragmatic fact that we are dealing with a captive audience. Within this context, we can bring sufficient pressure upon the students to have them exert the necessary effort and acquire some intellectual momentum. If softer alternatives were available, this course would not be elected regardless of its good repute, and eventually everything would degenerate to a substantially lower common denominator. We believe that our approach is practicable in a small, homogeneous college, but we have serious reservations about its practicability in a broader context. [Vol. XXVI, No. 2]

Area Studies

MARSHALL K. POWERS

[*Continued from page 89*]

for interdisciplinary training, certain departmental rights, recognized and assumed, must be respected. Whatever curricular pattern is adopted, it would be well for the planners to test the total pattern in the light of the area-studies objectives proposed in the monograph by Maurice T. Price referred to earlier. They are: an understanding of a people and its culture, a tolerant and appreciative attitude toward them, and a readiness to co-operate with them on political, economic, and social levels.[13] Within the framework of these objectives considerable curriculum flexibility should be permitted.

[13]Price, *loc. cit.*, p. 660.

Few objections would be encountered to the proposal that courses from the major disciplines of history, geography, and sociology should be included. However, since the suggestion departs from the traditional and reaches such areas as psychology, philosophy, religion, literature, and so on, increasing opposition is to be expected. Herein lies one of the major virtues of the area-studies program. A primary function of the area course is to reach across traditional academic boundaries and to create in the disciplinary isolationists an awareness of the interrelationship of knowledge.

The difficulties of implementing the area-studies program in American colleges and universities must not be underestimated. Neither should they be overestimated. The relatively recent origin of the concept presents a twin problem. One facet is presented by the prejudices of the traditional academicians. A second phase demands the establishment of a body of solid precedent upon which to build the future "academic respectability" of the program. This will take time, wise planning, and good administration in which faculty members and executive officers co-operate.

Many are convinced that the potential advantages resting in the area-studies program make imperative its incorporation into the instructional pattern of our system of higher education, notwithstanding the obstacles confronting the pioneer. For the training of the world citizen, for the accumulation of a body of information essential for our national survival, and as a technique of developing research methods in the social sciences, few plans offer more promise.

Toward Adequate Provision of Scholarships

[*Continued from page 104*]

together with instructions for its use and an explanation of the work of the Service. One copy of the form is filled out by the student's parents and sent directly to the office of the Service at Los Angeles, California, or Princeton, New Jersey. A second copy is retained by the family for its own records. The Service makes photographic copies and sends one to each college to which parents have requested that it be sent. Each college will use the financial information in accordance with its own situation and practices.

At the end of each year, the colleges will report to the Service all forms and amounts of aid which they have offered and all which have been accepted by candidates. Through the Service, all such information on each candidate will be exchanged by the colleges to which he applied. Thus all participating colleges will have complete information about the tenders and awards made to those candidates they had in common.

The Service assumes that families that want their children to go to college have the obligation to assist them so far as they are financially able. It expects to develop procedures which will assist colleges in computing the extent of the student's financial need. One method of computation is described in a manual which has been sent to the colleges.

By acting as a clearinghouse, the Service will collect a vast amount of information with respect to financial needs, funds available, and the efficiency of methods by which they are used. This information will be utilized in research projects designed to develop and improve computational procedures and later in the first large-scale study of the scholarship situation in the United States.

The developments sketched in the preceding paragraphs—the increasing tendency of corporations to establish scholarship programs, the work of the Council for Financial Aid to Education, and the establishment of the College Scholarship Service—are making important contributions to the development of larger provision for scholarships. Much remains to be done before these provisions are fully adequate, but much progress has been made. Those who have contributed to it deserve the gratitude of all friends of higher education.

R. H. E.

Study-Skills Programs

[*Continued from page 99*]

services offered; but it seems certain that a program designed to help students cannot be kept secret from them and at the same time serve their needs. The publicizing of programs need not be of the conventional advertising variety, of course; but the program should be made known to all students through written notices concerning services, hours, and so forth, articles in the campus papers which will reach and be read by both students and faculty, and any other device available to workers. The students and faculty who have received satisfactory service provided by the program will, of course, be the best publicity mediums once the program has been operating long enough to become known on the campus.

In the Lay Magazines

"The Freedom to Think," by Zechariah Chafee, *The Atlantic*, January, 1955.

Mr. Chafee, a professor at Harvard and an authority on this subject (he is the author of *Free Speech in the United States*), offers here an unusually intelligent and at the same time bold and uncompromising counterblast to the current purges of college "radicals" and "reds." One of the functions of the university, he says, especially in the social sciences, is to take the long view of social problems, to interpret the changes now going on in the light of history and specialized knowledge. The university cannot do this if it is forced to conform to current political and economic orthodoxies. This is particularly true in the state universities, subject as they often are to the whims of state legislatures.

Four kinds of attack on higher education are discussed in this article. First, there is the "Red Network" variety, which concentrates on "subversive" organizations, and on individuals known or supposed to be or have been members of such organizations. This, Mr. Chafee points out, does great harm to teaching through vaguely based attacks on individuals. It also indirectly undermines the American tradition of freedom of association, by making suspect all organizations or institutions which do not at the moment appear to conform to congressional notions of "Americanism."

Second, there are the loyalty oaths. These, as Mr. Chafee concisely puts it, "combine futility with insult." Genuine subversives will have no compunction about signing them, while honest teachers and scholars may justifiably feel that their honesty is being needlessly impugned, and may understandably object. As a result, the guilty go free and the innocent are punished.

Third, short-sighted restrictions on scholars and scientists visiting the United States for conferences or lectures hamper the free exhange of information, and often deprive this country of the services of distinguished men. Mr. Chafee suggests that organizations inviting distinguished foreigners to attend conferences or give lectures submit their requests directly to some official in Washington, so that the presently frequent delays in granting visas, and the occasional outright denials of entry, may be avoided, and so that this country may cease imitating the Soviet Union's iron curtain.

Fourth, there are the familiar legislative investigations, and subsequent prosecutions for perjury or contempt. Men who are suddenly caught up in such situations do often act unwisely, though actually they are seldom at fault. Radical teachers are not a danger, as Mr. Chafee points out. The danger comes from uninspired teachers, "dispensers of branded canned goods."

"Education for All Is Education for None," by Douglas Bush, *New York Times Magazine*, January 9, 1955.

At the present time, most colleges and universities are apprehensively (though not very regretfully, it sometimes appears) bracing themselves for the great flood of students which is expected to engulf them during the next few years. In the midst of all this, Mr. Bush, a professor of

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English at Harvard, raises his voice to ask a few penetrating questions about who these students will be, and what kind of education they will get. The very pressure of numbers, he contends, has already lowered academic standards, and is likely to lower them still further. However, he also thinks that larger numbers of students are not alone the cause of these lowered standards, or of the "illiteracy" of many college graduates. John Dewey and his followers in education are at least partly responsible. Mr. Bush characterizes Dewey's educational philosophy as a "philosophy of barbarism," because of its emphasis on vocational skills and (still according to Mr. Bush) its corresponding lack of emphasis on the humanities. Finally, from whatever cause, Mr. Bush thinks that the "lowest common denominator" has become an ideal, both for college admissions and for college teaching. As a result, liberal education often ceases at commencement.

To rectify this sad state of affairs, Mr. Bush makes several recommendations. The most obvious one, of course, is a more selective policy in college admissions. In connection with this, perhaps the junior colleges can absorb some of the students who should not be in colleges, though they "should not be recreational centers for the subnormal." A further and still more familiar suggestion is that somehow there must be more effective elementary- and secondary-school teaching, so as to reduce the burden of elementary and introductory courses which colleges are now forced to bear.

Beyond this, Mr. Bush has some suggestions to make about teaching itself. Courses, he feels, should be taught by the discussion method rather than by lectures. This, of course, would require small classes, and is another argument against indiscriminate admissions. Courses should be fewer and less specialized, so that students in all the various fields would get at least a taste of liberal education. Finally, there should be more emphasis on foreign languages, in view of the fact that our contact with other countries is constantly increasing.

In concluding his article, Mr. Bush suggests that greater efforts be made to discover talented high-school students and to aid them to enter college.

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